

This document gives pertinent information concerning the reissuance of the VPDES Permit listed below. This permit is being processed as a Minor, Municipal permit. The discharge results from the operation of a 0.012 MGD wastewater treatment plant. This permit action consists of updating the proposed effluent limits to reflect the current Virginia WQS (effective January 6, 2011) and updating permit language as appropriate. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards of 9VAC25-260 et seq.

1. Facility Name and Mailing Address:	Hiway MHC LLC STP 10006 Hammock Bend Chapel Hill, NC 27517	SIC Code :	4952 WWTP
Facility Location:	14489 James Monroe Hwy Leesburg, VA 20176	County:	Loudoun
Facility Contact Name:	Matthew E. Raynor	Telephone Number:	(919)960-5739
Facility E-mail Address:	Tarmatt@aol.com		

2. Permit No.:	VA0074942	Expiration Date of previous permit:	12/11/2012
Other VPDES Permits associated with this facility:		None	
Other Permits associated with this facility:		None	
E2/E3/E4 Status:	Not Applicable (NA)		

3. Owner Name:	Hiway MHC, LLC		
Owner Contact/Title:	Matthew E. Raynor Environmental Director	Telephone Number:	(919)960-5739
Owner E-mail Address:	Tarmatt@aol.com		

4. Application Complete Date:	May 22, 2012		
Permit Drafted By:	Alison Thompson	Date Drafted:	10/31/2012
Draft Permit Reviewed By:	Joan Crowther	Date Reviewed:	11/2/2012
WPM Review By:	Bryant Thomas	Date Reviewed:	-----
Public Comment Period :	Start Date: 12/12/2012	End Date:	1/11/2013

5. Receiving Waters Information: See Attachment 1 for the Flow Frequency Determination

Receiving Stream Name :	Limestone Branch, UT	Stream Code:	XGK
Drainage Area at Outfall:	0.55 sq.mi.	River Mile:	0.39
Stream Basin:	Potomac	Subbasin:	Potomac
Section:	8	Stream Class:	III
Special Standards:	PWS	Waterbody ID:	VAN-A03R
7Q10 Low Flow:	0.0 MGD	7Q10 High Flow:	0.0 MGD
1Q10 Low Flow:	0.0 MGD	1Q10 High Flow:	0.0 MGD
30Q10 Low Flow:	0.0 MGD	30Q10 High Flow:	0.0 MGD
Harmonic Mean Flow:	0.0 MGD	30Q5 Flow:	0.0 MGD

6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

<input checked="" type="checkbox"/> State Water Control Law	<input checked="" type="checkbox"/> EPA Guidelines
<input checked="" type="checkbox"/> Clean Water Act	<input checked="" type="checkbox"/> Water Quality Standards
<input checked="" type="checkbox"/> VPDES Permit Regulation	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> EPA NPDES Regulation	

7. Licensed Operator Requirements: Class IV

8. Reliability Class: Class II

9. Permit Characterization:

<input checked="" type="checkbox"/> Private	<input checked="" type="checkbox"/> Effluent Limited	<input type="checkbox"/> Possible Interstate Effect
<input type="checkbox"/> Federal	<input checked="" type="checkbox"/> Water Quality Limited	<input type="checkbox"/> Compliance Schedule Required
<input type="checkbox"/> State	<input type="checkbox"/> Toxics Monitoring Program Required	<input type="checkbox"/> Interim Limits in Permit
<input type="checkbox"/> POTW	<input type="checkbox"/> Pretreatment Program Required	<input type="checkbox"/> Interim Limits in Other Document
<input checked="" type="checkbox"/> TMDL		

10. **Wastewater Sources and Treatment Description:**

The trailer park is owned by Hiway Mobile Home Community, LLC. All sewage influent flows through the trailer park collection system via gravity to the sewage treatment plant. Wastewater treatment consists of a primary treatment unit (a bar screen, air lift tanks and, a primary settling compartment); secondary treatment, a secondary settling compartment, chlorination, dechlorination, and aerobic digestion. In case of emergency plant shutdown, sewage influent is routed to a septic tank and drainfields.

Large solids in the influent are filtered by a manual bar screen. This bar screen is manually cleaned about once a week. All flow readings are estimated using the water meters located at the waterworks.

Duplex air lift pumps relay the influent to the primary settling compartment. The air lift pumps operate alternately. Solids that accumulate on the bottom of the primary settling compartment are automatically pumped to the aerobic sludge digester.

The sewage in the primary settling compartment travels over a weir to the aeration basin. After secondary treatment, the sewage effluent is sent to a secondary settling compartment. The bases of the aeration basin and the secondary settling compartment are sloped so that sludge settling to the bottom of these units is routed to the digester.

After secondary clarification, the sewage effluent is chlorinated and dechlorinated. Chlorination is conducted in a small contact chamber using a tube feeder and 73% calcium hypochlorite tablets. Water in the chlorine contact tank is reused in washing the plant. Next, dechlorination occurs using a tube feeder and sodium sulfite tablets.

Outfall 001 discharges to an unnamed tributary (UT) of Limestone Branch.

See Attachment 2 for a facility schematic/diagram.

TABLE 1 – Outfall Description				
Outfall Number	Discharge Sources	Treatment	Design Flow	Outfall Latitude and Longitude
001	Domestic Wastewater	See Item 10 above.	0.012 MGD	39° 12' 50.3" N 77° 32' 11.1" W
See Attachment 3 for (Waterford, DEQ #215A) topographic map.				

**11. Sludge Treatment and Disposal Methods:**

Approximately once every two months, waste sludge created by the treatment process is aerobically digested and pumped onto covered drying beds. Supernatant from the digester is gravity fed to the primary settling compartment. Sludge is removed from the drying beds three to four times a year, placed in plastic garbage bags, and taken to the Loudoun County Landfill for disposal.

**12. Discharges, Intakes, Monitoring Stations, Other Items in Vicinity of Discharge**

TABLE 2 DISCHARGES, INTAKES & MONITORING STATIONS	
ID / Permit Number	Description
VA0074934	One Stop Trailer Park Sewage Treatment Plant discharge to Clarks Run
VA0021750	Lucketts Elementary School Sewage Treatment Plant discharge to another Limestone Branch, UT
1aXAQ000.85	DEQ ambient monitoring station on Limestone Branch, UT, at Route 661. This is a different UT than the discharge point.
1AXAQ-5-LWC	Citizen monitoring station on Limestone Branch, UT, at Route 661.
VA0067938	North Spring Behavioral Healthcare Sewage Treatment Plant (different unnamed tributary to Limestone Branch)
	Town of Leesburg – raw water intake (Potomac River)
VA0092282	Town of Leesburg Water Pollution Control Facility (Potomac River)
	Fairfax Water – raw water intake (Potomac River)

There are no PWS intakes within 5 miles of this discharge.

**13. Material Storage:**

TABLE 3 - Material Storage		
Materials Description	Volume Stored	Spill/Stormwater Prevention Measures
73% Calcium Hypochlorite Tablets	3 – 5-gallon buckets	Stored in shed
Sodium Sulfite Tablets	3 – 5-gallon buckets	Stored in shed
Hypochloric acid	4 gallons	Stored in shed (no longer used)

**14. Site Inspection:**

Performed by Sharon Allen on February 12, 2009 (Attachment 4).

**15. Receiving Stream Water Quality and Water Quality Standards:**a) Ambient Water Quality Data

This facility discharges into an unnamed tributary to Limestone Branch. There is not any monitoring information for this stream. The nearest downstream DEQ monitoring station is 1aXAQ000.85, located on another unnamed tributary to Limestone Branch at the Route 661 Bridge crossing. This station is located approximately 3.0 miles downstream of Outfall 001. The following is the water quality summary for this unnamed tributary to Limestone Branch, as taken from the Draft 2012 Integrated Report\*:

*E. coli* monitoring finds a bacteria impairment, resulting in an impaired classification for the recreation use. This impairment is nested within the downstream completed bacteria TMDL for Limestone Branch.

The aquatic life use is fully supporting, however an observed effect for the aquatic life use is noted as citizen monitoring finds a medium probability of adverse conditions for biota. The wildlife use is considered fully supporting.

The fish consumption and public water supply uses were not assessed.

*\*The Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently being finalized and prepared for release.*

b) 303(d) Listed Stream Segments and Total Maximum Daily Loads (TMDLs)

TABLE 4. Information on Downstream 303(d) Impairments and TMDLs

Waterbody Name	Impaired Use	Cause	Distance From Outfall	TMDL completed	WLA	Basis for WLA	TMDL Schedule
<b><i>Impairment Information in the Draft 2012 Integrated Report*</i></b>							
Unnamed Tributary to Limestone Branch	Recreation	<i>E. coli</i>	1.9 miles	Limestone Branch Bacteria 07/06/2004	2.09E+10 cfu/year <i>E. coli</i>	126 cfu/100ml --- 0.012 MGD	NA

*\*The Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently being finalized and prepared for release.*

The full planning statement can be found in Attachment 5.

c) Receiving Stream Water Quality Criteria

Part IX of 9VAC25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream, Limestone Branch, UT, is located within Section 8 of the Potomac River Basin, and classified as a Class III water.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32°C, and maintain a pH of 6.0-9.0 standard units (S.U.).

Attachment 6 details other water quality criteria applicable to the receiving stream.

Ammonia:

The fresh water, aquatic life Water Quality Criteria for Ammonia are dependent on the instream temperature and pH. The 90<sup>th</sup> percentile temperature and pH values are used because they best represent the critical design conditions of the receiving stream. The 7Q10 and 1Q10 of the receiving stream are 0.0 MGD. In cases such as this, effluent pH and temperature data may be used to establish the ammonia water quality standard.

Staff has re-evaluated the effluent data for pH from September 2011 through September 2012 and finds no significant differences from the data used to establish ammonia criteria and subsequent effluent limits in the previous permit. The previously established 90<sup>th</sup> percentile pH was 7.5 s.u. and the newly calculated 90<sup>th</sup> percentile pH is 7.55 s.u.; therefore, a pH value of 7.5 s.u. shall be used in the ammonia criteria calculations in Attachment 6. Staff also calculated a 10<sup>th</sup> percentile pH of 7.05 s.u. from the same data set. See Attachment 6 for the derivation of the 90<sup>th</sup> percentile values of the effluent pH data.

There is no new temperature data for the effluent. It is staff's best professional judgment that since there is no change in the pH of the effluent that there would be no change to the expected temperature of the effluent as well. The previously established effluent temperature values of 25°C annual and 16°C wet season be carried forward with this reissuance.

Metals Criteria:

The Water Quality Criteria for some metals are dependent on the receiving stream's hardness (expressed as mg/L calcium carbonate). There is no hardness data for this facility. DEQ staff determined that the average Total Hardness for the VAN-A03R watershed is 108 mg/L using all available ambient data from January 1, 1990 through February 28, 2012. The hardness-dependent metals criteria in Attachment 6 are based on this average watershed value.

Bacteria Criteria:

The Virginia Water Quality Standards at 9VAC25-260-170A state that the following criteria shall apply to protect primary recreational uses in surface waters:

- 1) *E. coli* bacteria per 100 ml of water shall not exceed a monthly geometric mean of the following:

	Geometric Mean <sup>1</sup>
Freshwater <i>E. coli</i> (N/100 ml)	126

<sup>1</sup>For a minimum of four weekly samples [taken during any calendar month].

d) Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9VAC25-260-360, 370 and 380) designates the river basins, sections, classes, and special standards for surface waters of the Commonwealth of Virginia. The receiving stream, Limestone Branch, UT, is located within Section 8 of the Potomac Basin. This section has been designated with a special standard of PWS.

Special Standard PWS designates a public water supply intake. The Board's Water Quality Standards establish numerical standards for specific parameters calculated to protect human health from toxic effects through drinking water and fish consumption. See 9VAC25-260-140B for applicable criteria.

e) Threatened or Endangered Species

The Virginia DGIF Fish and Wildlife Information System Database was searched on May 22, 2012, for records to determine if there are threatened or endangered species in the vicinity of the discharge. The following state threatened or endangered species were identified: Upland Sandpiper and Loggerhead Shrike. The limits proposed in this draft permit are protective of the Virginia Water Quality Standards and protect the threatened and endangered species found near the discharge. The search results have been placed in Attachment 7.

**16. Antidegradation (9VAC25-260-30):**

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 based on an evaluation of the receiving stream. The critical flows for the stream are zero and at times the stream flow is comprised of only effluent. It is staff's best professional judgment that such streams are Tier 1. Also, effluent limitations were established to meet the Water Quality Standards. Permit limits proposed have been established by determining wasteload allocations which will result in

attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

# **17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development:**

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points is equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards (WQS) are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLA) are calculated. In this case since the critical flows 7Q10 and 1Q10 have been determined to be zero, the WLA's are equal to the WQS. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are based on the most limiting WLA, the required sampling frequency, and statistical characteristics of the effluent data.

## a) Effluent Screening:

Effluent data obtained from the permit application and submitted Discharge Monitoring Reports (DMRs) from January 2011 through August 2012 has been reviewed and determined to be suitable for evaluation.

The facility has had effluent exceedances during the past 2 years for TSS concentration monthly average and weekly average, BOD<sub>5</sub> concentration monthly average and weekly average, and Ammonia as N concentration monthly average and weekly average.

The following pollutants require a wasteload allocation analysis: Ammonia as N and Total Residual Chlorine.

## b) Mixing Zones and Wasteload Allocations (WLAs):

Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f)(Q_s)] - [(C_s)(f)(Q_s)]}{Q_e}$$

Where:

WLA	=	Wasteload allocation
C <sub>o</sub>	=	In-stream water quality criteria
Q <sub>e</sub>	=	Design flow
Q <sub>s</sub>	=	Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; 30Q10 for ammonia criteria; harmonic mean for carcinogen-human health criteria; and 30Q5 for non-carcinogen human health criteria)
f	=	Decimal fraction of critical flow
C <sub>s</sub>	=	Mean background concentration of parameter in the receiving stream.

The water segment receiving the discharge via Outfall 001 is considered to have a 7Q10 and 1Q10 of 0.0 MGD. As such, there is no mixing zone and the WLA is equal to the C<sub>o</sub>.

## c) Effluent Limitations Toxic Pollutants, Outfall 001 –

9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9VAC25-31-230.D requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

## 1) Ammonia as N:

Staff evaluated the more recent effluent data (Attachment 7) and has concluded it is not significantly different than what was used to derive the existing ammonia limits. DEQ guidance suggests using a sole data point of 9.0 mg/L for discharges containing domestic sewage to ensure the evaluation adequately addresses the potential for ammonia to be present in the discharge containing domestic sewage. While the criteria calculated with this reissuance are less stringent than those used to derive the current effluent limitations, updates to the criteria are not to be used as a basis for backsliding; therefore, existing ammonia limitations are proposed to continue in the reissued permit (Attachment 8).

## 2) Total Residual Chlorine:

Chlorine is used for disinfection and is potentially in the discharge. Staff calculated WLAs for TRC using current critical flows and the mixing allowance. In accordance with current DEQ guidance, staff used a default data point of 0.2 mg/L and the calculated WLAs to derive limits. A monthly average of 0.008 mg/L and a weekly average limit of 0.010 mg/L were calculated for this discharge (Attachment 8). The limitations calculated are less stringent than those found in the previous permit, since a review of the previous derivation indicates that the limits are technically incorrect since the wrong Acute WLA was entered into the statistical program.

d) Effluent Limitations and Monitoring, Outfall 001 – Conventional and Non-Conventional Pollutants

No changes to dissolved oxygen (D.O.), biochemical oxygen demand-5 day (BOD<sub>5</sub>), total suspended solids (TSS), and pH limitations are proposed.

Dissolved Oxygen and BOD<sub>5</sub> limitations are based on the stream modeling conducted in June 1987 (Attachment 9) and are set to meet the water quality criteria for D.O. in the receiving stream. Staff has reviewed the stream model and determined that the assumptions are still appropriate and the limits established shall be carried forward with this reissuance.

It is staff's practice to equate the Total Suspended Solids limits with the BOD<sub>5</sub> limits. TSS limits are established to equal BOD<sub>5</sub> limits since the two pollutants are closely related in terms of treatment of domestic sewage.

pH limitations are set at the water quality criteria.

*E. coli* limitations are in accordance with the Water Quality Standards 9VAC25-260-170.

e) Effluent Limitations and Monitoring Summary.

The effluent limitations are presented in the following table. Limits were established for Flow, BOD<sub>5</sub>, Total Suspended Solids, Ammonia as N, pH, Dissolved Oxygen, Total Residual Chlorine, and *E. coli*.

The limit for Total Suspended Solids is based on Best Professional Judgement.

The mass loading (kg/d) for monthly and weekly averages were calculated by multiplying the concentration values (mg/L), with the flow values (in MGD) and a conversion factor of 3.785.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

The VPDES Permit Regulation at 9VAC25-31-30 and 40 CFR Part 133 require that the facility achieve at least 85% removal for BOD and TSS (or 65% for equivalent to secondary). The limits in this permit are water-quality-based effluent limits and result in greater than 85% removal.

# **18. Antibacksliding:**

The backsliding proposed with this reissuance conforms to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, 9VAC25-31-220.L. and 40 CFR 122.44. As stated earlier, VPDES Permit regulations, 9VAC25-31-220.L.2.b.(1) and (2) does allow for relaxation of permit limitations during a permit reissuance if new information becomes available and technical mistakes were made during the previous issuance, respectively. Technical mistakes were discovered upon review of the previous reissuance file (Section 17.c.).

# **19. Effluent Limitations/Monitoring Requirements:**

Design flow is 0.012 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Weekly Average	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/D	Estimate
pH	3	NA	NA	6.0 S.U.	9.0 S.U.	1/D	Grab
BOD <sub>5</sub>	3,5	25 mg/L 1.1 kg/d	38 mg/L 1.7 kg/d	NA	NA	1/M	Grab
Total Suspended Solids (TSS)	2	25 mg/L 1.1 kg/d	38 mg/L 1.7 kg/d	NA	NA	1/M	Grab
Dissolved Oxygen (DO)	3	NA	NA	6.0 mg/L	NA	1/D	Grab
Ammonia, as N (Nov-April)	3,5	3.1 mg/L	3.1 mg/L	NA	NA	1/M	Grab
Ammonia, as N (May-Oct)	3,5	2.1 mg/L	2.1 mg/L	NA	NA	1/M	Grab
<i>E. coli</i> (Geometric Mean) <sup>(a)(b)</sup>	3	126 n/100mls	NA	NA	NA	1/W	Grab
Total Residual Chlorine (after contact tank)	2, 3, 4	NA	NA	1.0 mg/L	NA	1/D	Grab
Total Residual Chlorine (after dechlorination)	3	0.008 mg/L	0.010 mg/L	NA	NA	1/D	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgement
3. Water Quality Standards
4. DEQ Disinfection Guidance
5. Stream Model- Attachment 9

MGD = Million gallons per day.

NA = Not applicable.

NL = No limit; monitor and report.

S.U. = Standard units.

1/D = Once every day.

1/M = Once every month.

1/W = Once every week.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

a. Samples shall be collected between 10:00 a.m. and 4:00 p.m.

b. The permittee shall sample and submit *E. coli* results at the frequency of once every week for three (3) months. If all reported results for *E. coli* do not exceed 126 n/100mL, reported as the geometric mean, the permittee may submit a written request to DEQ-NRO for a reduction in the sampling frequency to once per quarter.

Upon approval, the permittee shall collect four (4) samples during one month within each quarterly monitoring period as defined below. The results shall be reported as the geometric mean. The quarterly monitoring periods shall be January through March, April through June, July through September and October through December. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period.

Should any of the quarterly monitoring results for *E. coli* exceed 126 n/100mL, reported as the geometric mean, the monitoring frequency shall revert to once per week for the remainder of the permit term.

# **20. Other Permit Requirements:**

- a) Part I.B. of the permit contains additional chlorine monitoring requirements, quantification levels and compliance reporting instructions.

These additional chlorine requirements are necessary per the Sewage Collection and Treatment Regulations at 9VAC25-70 and by the Water Quality Standards at 9VAC25-260-170. A minimum chlorine residual must be maintained at the exit of the chlorine contact tank to assure adequate disinfection. No more that 10% of the monthly test results for TRC at the exit of the chlorine contact tank shall be <1.0 mg/L with any TRC <0.6 mg/L considered a system failure. Monitoring at numerous STPs has concluded that a TRC residual of 1.0



mg/L is an adequate indicator of compliance with the *E. coli* criteria. *E. coli* limits are defined in this section as well as monitoring requirements to take effect should an alternate means of disinfection be used.

9VAC25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9VAC25-31-220.D requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

## 21. Other Special Conditions:

- a) 95% Capacity Reopener. The VPDES Permit Regulation at 9VAC25-31-200.B.4 requires all POTWs and PVOTWs develop and submit a plan of action to DEQ when the monthly average influent flow to their sewage treatment plant reaches 95% or more of the design capacity authorized in the permit for each month of any three consecutive month period. The facility is a PVOTW.
- b) Indirect Dischargers. Required by VPDES Permit Regulation, 9VAC25-31-200 B.1 and B.2 for POTWs and PVOTWs that receive waste from someone other than the owner of the treatment works.
- c) O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; Sewage Collection and Treatment Regulations, 9VAC25-790; VPDES Permit Regulation, 9VAC25-31-190.E. The permittee shall maintain a current Operations and Maintenance (O&M) Manual. The permittee shall operate the treatment works in accordance with the O&M Manual and shall make the O&M Manual available to Department personnel for review upon request. Any changes in the practices and procedures followed by the permittee shall be documented in the O&M Manual within 90 days of the effective date of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.
- d) CTC, CTO Requirement. The Code of Virginia § 62.1-44.19; Sewage Collection and Treatment Regulations, 9VAC25-790 requires that all treatment works treating wastewater obtain a Certificate to Construct prior to commencing construction and to obtain a Certificate to Operate prior to commencing operation of the treatment works.
- e) Financial Assurance. Required by Code of Virginia §62.1.-44.18:3 and the Board's Financial Assurance Regulation, 9VAC25-650-1, et seq. which requires owners and operators of PVOTWs with a design flow >0.005 MGD but <0.040 MGD and treating sewage from private residences to submit a closure plan and maintain adequate financial assurance in the event the facility ceases operations. The permitted facility is a PVOTW with a design flow of 0.012, and treats sewage generated from private residences.
- f) Licensed Operator Requirement. The Code of Virginia at §54.1-2300 et seq. and the VPDES Permit Regulation at 9VAC25-31-200 C, and Rules and Regulations for Waterworks and Wastewater Works Operators (18VAC160-20-10 et seq.) requires licensure of operators. This facility requires a Class IV operator.
- g) Reliability Class. The Sewage Collection and Treatment Regulations at 9VAC25-790 require sewage treatment works to achieve a certain level of reliability in order to protect water quality and public health consequences in the event of component or system failure. Reliability means a measure of the ability of the treatment works to perform its designated function without failure or interruption of service. The facility is required to meet a reliability Class of II.
- h) Water Quality Criteria Reopener. The VPDES Permit Regulation at 9VAC25-31-220 D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should effluent monitoring indicate the need for any water quality-based limitations, this permit may be modified or alternatively revoked and reissued to incorporate appropriate limitations.
- i) Sludge Reopener. The VPDES Permit Regulation at 9VAC25-31-220.C. requires all permits issued to treatment works treating domestic sewage (including sludge-only facilities) include a reopener clause allowing incorporation of any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the CWA. The facility includes a sewage treatment works.

- j) Sludge Use and Disposal. The VPDES Permit Regulation at 9VAC25-31-100.P; 220.B.2, and 420 through 720, and 40 CFR Part 503 require all treatment works treating domestic sewage to submit information on their sludge use and disposal practices and to meet specified standards for sludge use and disposal. The facility includes a treatment works treating domestic sewage.
- k) Treatment Works Closure Plan. The State Water Control Law §62.1-44.15:1.1, makes it illegal for an owner to cease operation and fail to implement a closure plan when failure to implement the plan would result in harm to human health or the environment. This condition is used to notify the owner of the need for a closure plan where a facility is being replaced or is expected to close.
- l) TMDL Reopener: This special condition is to allow the permit to reopened if necessary to bring it in compliance with any applicable TMDL that may be developed and approved for the receiving stream.

Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

**22. Changes to the Permit from the Previously Issued Permit:**

- a) **Special Conditions:**  
No changes are proposed for the special conditions.
- b) **Monitoring and Effluent Limitations:**
  - 1) The Total Residual Chlorine limitations were revised based on a technical error discovered with the calculation of the limits in the current permit.
  - 2) Monitoring for *E. coli* was revised from 2/Month to 1/Week in accordance with the current Water Quality Standards. A reduction to 1/Week in one month every calendar quarter can be granted if no exceedances are noted in the first three consecutive months of monitoring.
- c) **Other:**
  - 1) The rivermile was corrected from 3.86 to 0.39.
  - 2) The drainage area was corrected from 89.6 sq mi to 0.55 sq mi.

**23. Variances/Alternate Limits or Conditions:**

None

**24. Public Notice Information:**

First Public Notice Date: 12/12/12

Second Public Notice Date: 12/19/12

Public Notice Information is required by 9VAC25-31-280 B. All pertinent information is on file and may be inspected, and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3834, [Alison.Thompson@deq.virginia.gov](mailto:Alison.Thompson@deq.virginia.gov). See Attachment 10 for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer and of all persons represented by the commenter/requester, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit. Requests for public hearings shall state 1) the reason why a hearing is requested; 2) a brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit; and 3) specific references, where possible, to terms and conditions of the permit with suggested revisions. Following

the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given. The public may request an electronic copy of the draft permit and fact sheet or review the draft permit and application at the DEQ Northern Regional Office by appointment.

**25. Additional Comments:**

Previous Board Action(s): None.

Staff Comments: None.

Public Comment:

EPA Checklist: The checklist can be found in Attachment 11.

## MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY  
Office of Water Quality Assessments  
629 East Main Street P.O. Box 10009 Richmond, Virginia 23219

**SUBJECT:** Flow Frequency Determination  
Hiway Trailer Park STP – #VA0074942

**TO:** Jeff Talbott, NRO

**FROM:** Paul E. Herman, P.E., WQAP

**DATE:** April 4, 2002

**COPIES:** File

This memo supersedes my May 16, 1997, memo to Doug Stockman concerning the subject VPDES permit.

The Hiway Trailer Park STP discharges to an unnamed tributary to the Limestone Branch near Lucketts, VA. Stream flow frequencies are required at this site for use by the permit writer in developing the VPDES permit.

At the discharge point, the receiving stream is shown to be intermittent on the USGS Waterford Quadrangle topographic map. The flow frequencies for an intermittent stream are 0.0 cfs for the 1Q10, 7Q10, 30Q5, high flow 1Q10, high flow 7Q10, and harmonic mean. For modeling purposes, flow frequencies are provided below for the first perennial reach downstream of the discharge point.

The USGS conducted several flow measurements on a different tributary of Limestone Branch from 1979 to 1980. The measurements were made at the Route 661 bridge, approximately 4.0 miles downstream of the discharge point. The measurements made by the USGS correlated very well with the same day daily mean values from the continuous record gage on the Catoctin Creek at Taylorstown, VA (#01638480). The measurements and daily mean values were plotted on a logarithmic graph and a best fit line was drawn through the data points. The required flow frequencies from the reference gage were plugged into the equation for the regression line and the associated flow frequencies at the measurement site were calculated.

The flow frequencies at the discharge point were determined by using the values at the measurement site and adjusting them by proportional drainage areas. The data for the reference gage, the measurement site, and the discharge point are presented below. This analysis does not address discharges, withdrawals or springs which may lie upstream of the discharge point.

**Catoctin Creek at Taylorstown, VA (#01638480):**

Drainage Area = 89.6 mi <sup>2</sup>	
1Q10 = 0.81 cfs	High Flow 1Q10 = 6.42 cfs
7Q10 = 1.02 cfs	High Flow 7Q10 = 8.59 cfs
30Q5 = 3.39 cfs	HM = 10.9 cfs
Annual Average = 102 cfs	

The high flow months are December through May.

## Thompson, Alison (DEQ)

---

**From:** Carlson, Jennifer (DEQ)  
**Sent:** Wednesday, October 31, 2012 9:26 AM  
**To:** Thompson, Alison (DEQ)  
**Subject:** RE: VA0074942 Hiway MHC WWTP Planning Request

The drainage area for this facility is 0.55 mi<sup>2</sup>

*Jennifer Carlson*

---

**From:** Thompson, Alison (DEQ)  
**Sent:** Thursday, October 25, 2012 6:00 AM  
**To:** Carlson, Jennifer (DEQ)  
**Subject:** RE: VA0074942 Hiway MHC WWTP Planning Request

J,  
I thought we had an accurate drainage area for this facility, but it turns out we do not. If you have a moment, could you calculate one for me?

The lat/long are 39° 12' 50.3" N 77° 32' 11.1" W

Thx

Alison Thompson  
Water Permits Technical Reviewer  
Virginia Dept of Environmental Quality  
Northern Regional Office  
13901 Crown Ct  
Woodbridge, VA 22193  
(703) 583-3834  
[alison.thompson@deq.virginia.gov](mailto:alison.thompson@deq.virginia.gov)

---

**From:** Carlson, Jennifer (DEQ)  
**Sent:** Friday, June 08, 2012 2:11 PM  
**To:** Thompson, Alison (DEQ)  
**Cc:** Thomas, Bryant (DEQ)  
**Subject:** RE: VA0074942 Hiway MHC WWTP Planning Request

Hi Alison,

Another completed planning statement! Let me know if you have any questions.

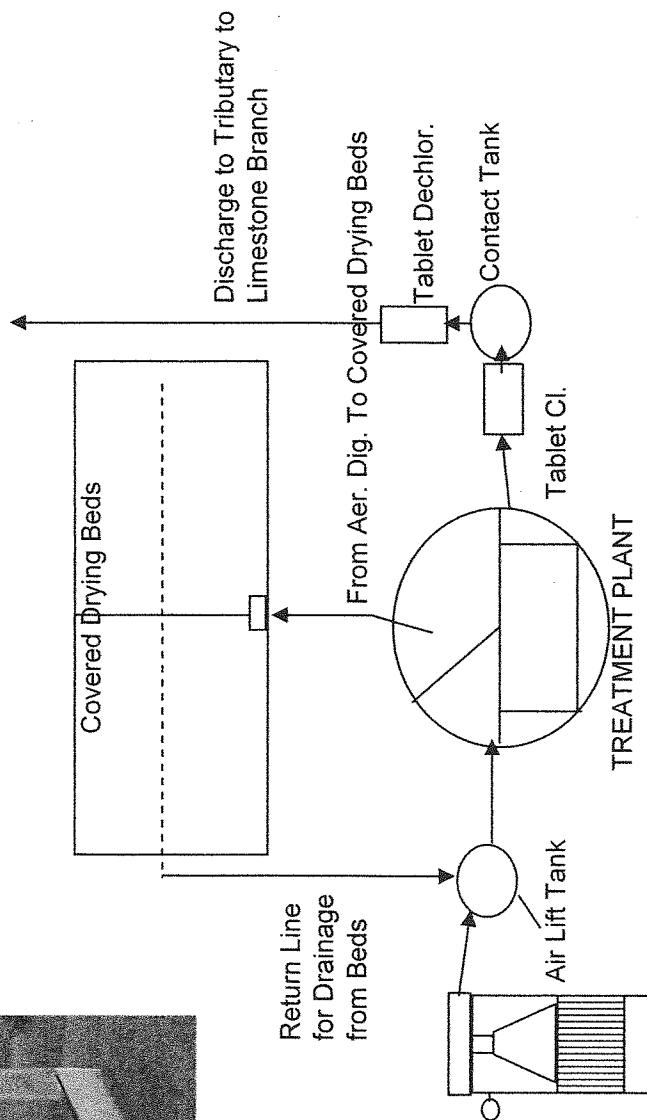
*Jennifer Carlson*

---

**From:** Thompson, Alison (DEQ)  
**Sent:** Tuesday, May 22, 2012 9:11 AM  
**To:** Carlson, Jennifer (DEQ); Conaway, Katie (DEQ)  
**Cc:** Thompson, Alison (DEQ)  
**Subject:** VA0074942 Hiway MHC WWTP Planning Request

Please let me know if you need anything more for the facility. Feel free to use the updated planning statement that you've been working on.

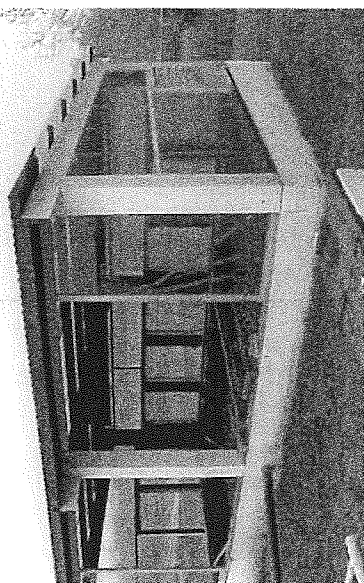
# HIWAY MHC STP



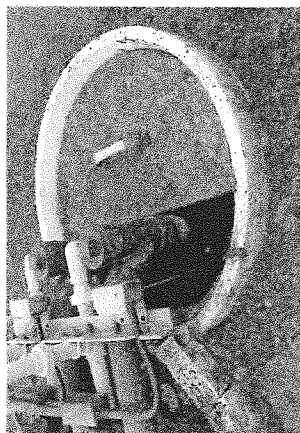
## SLUDGE MANAGEMENT

Sludge is transferred to the aerobic digester from the settling tanks. Sludge is transferred from the aerobic digester to the covered drying beds (2) and the free water which drains from the beds is returned to the airlift tank which is at the head of the plant. When material on the bed is at the crack stage and is forkable it is removed from the beds and double bagged. Material is taken to the Loudoun County Landfill for final management.

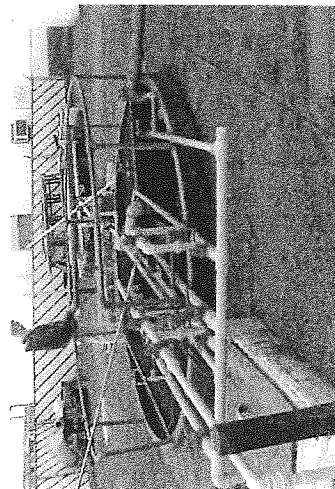
Plant Headworks



Covered Drying Beds

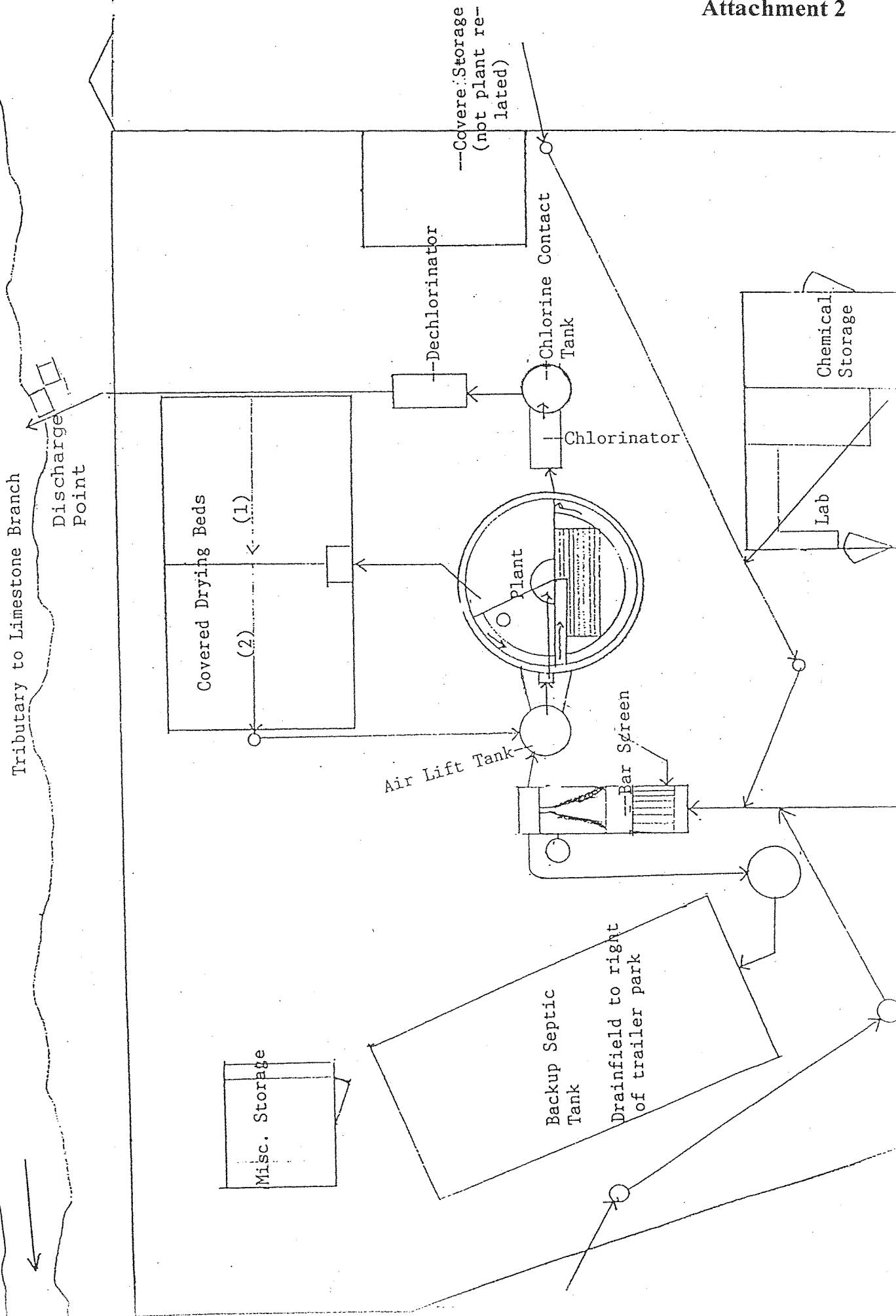


Air Lift Tank

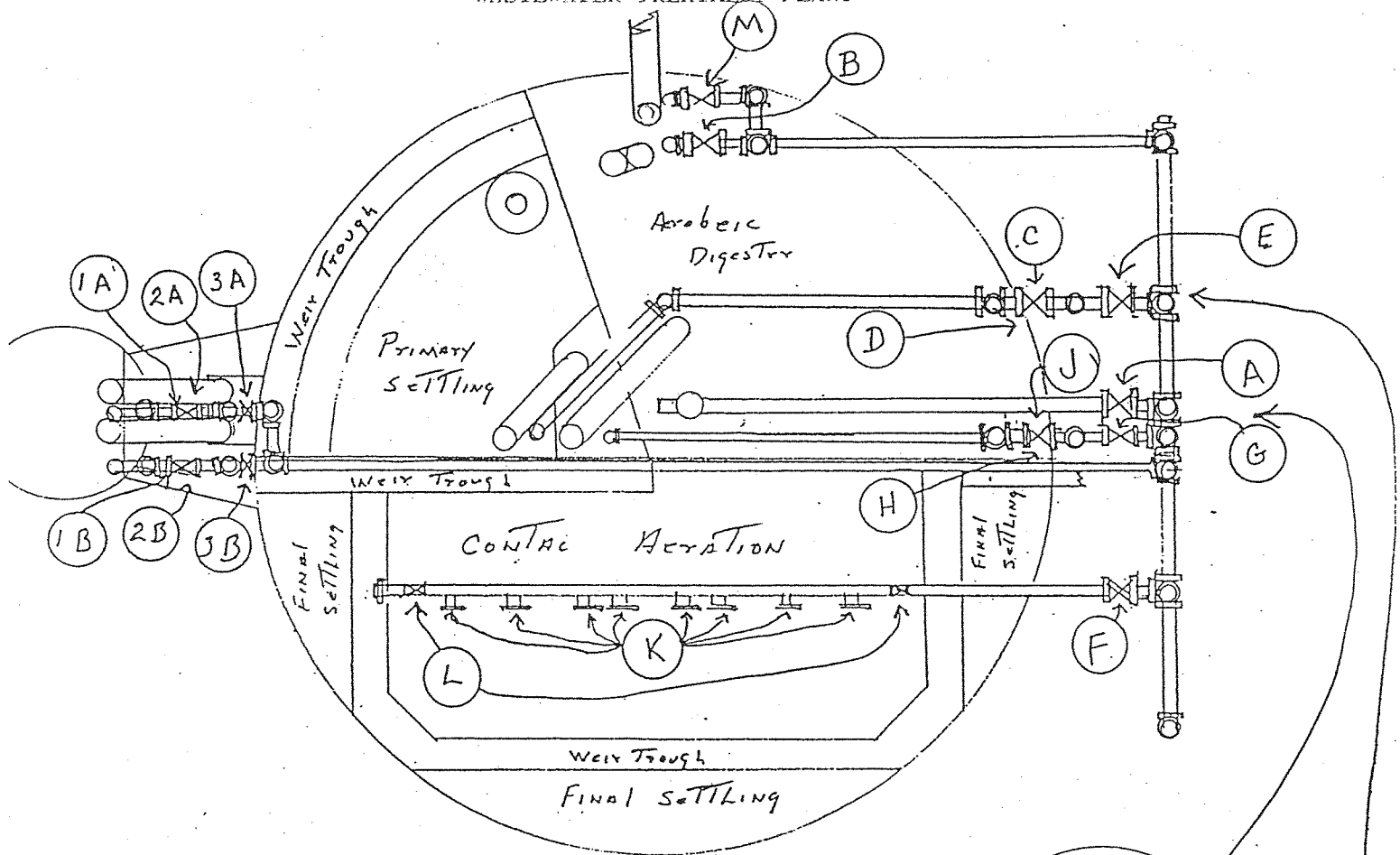


Treatment Plant - See Line to Beds

DIAGRAM OF HIWAY TRAILER PARK, L.P., WASTEWATER TREATMENT PLANT



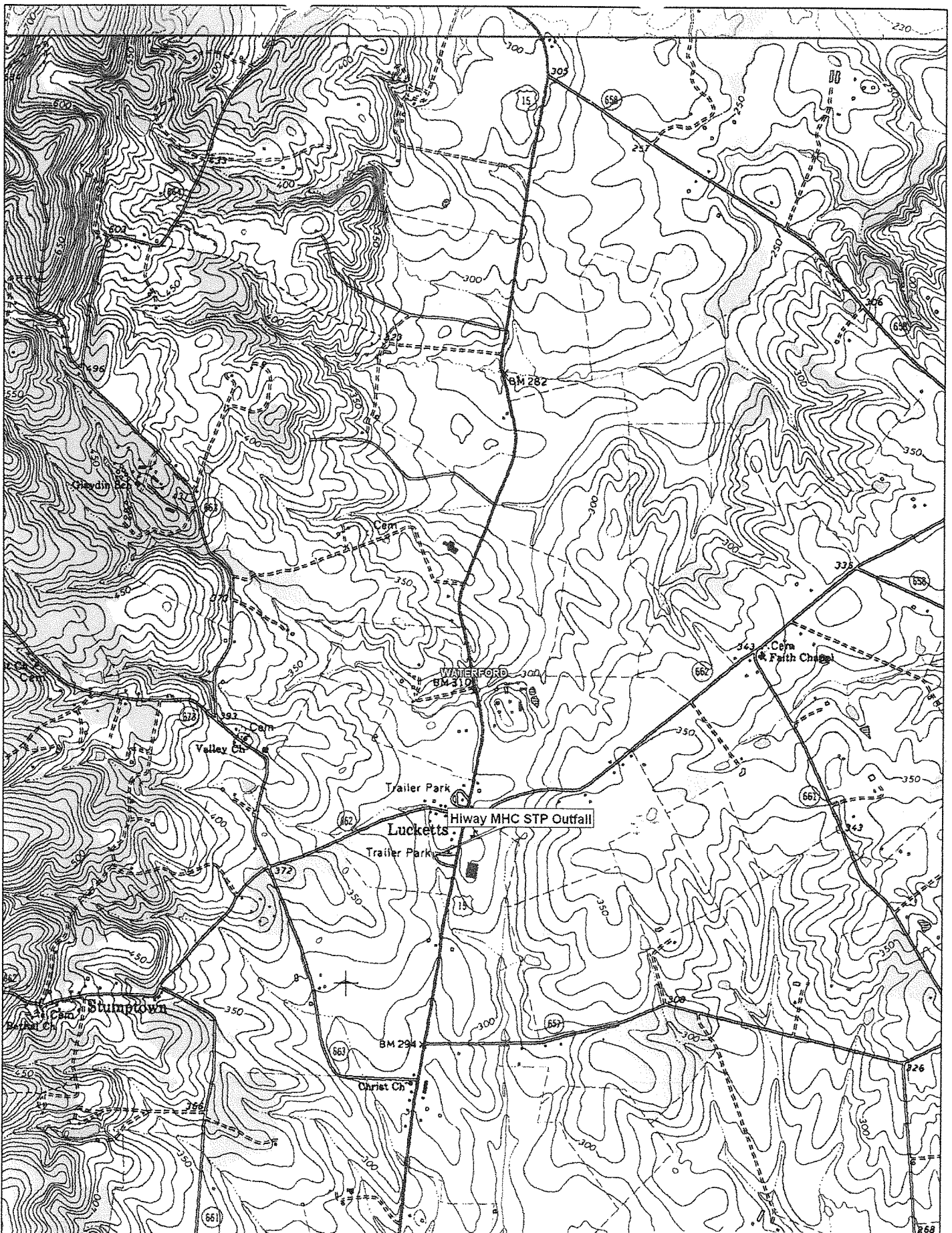
WAY TRAILER PARK, INC.  
WASTEWATER TREATMENT PLANT



KEY:

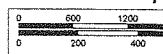
- A: Controls Air to Aerobic Digester
  - B: Controls Air to Scum Air Lift
  - C: Manual By-Pass to Primary Sludge Air Lift
  - D: Automatic Solenoid Control of Primary Sludge Air Lift
  - E: Throttles Air to Primary Air Lift
  - F: Controls Air to Contact Aerator
  - G: Throttles Air to Final Sludge Air Lift
  - H: Automatic Solenoid Control of Final Sludge Air Lift
  - J: Manual By-Pass to Final Sludge Air Lift
  - K: Controls Air Supply to Each Carborundum Tube
  - L: Controls Air Supply to Foam Sprayers
  - M: Controls Air Supply to Digested Sludge Drain-Off to Drying Beds
- 
- 1A: Manual By-Pass to Primary Settling Backup
  - 2A: Automatic Solenoid Control of Primary Settling Backup
  - 3A: Throttles Air to Primary Settling Air Lift Backup..
  - 1B: Manual By-Pass to Primary Settling
  - 2B: Automatic Solenoid Control of Primary Settling
  - 3B: Throttles Air to Primary Settling Air Lift





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www.delorme.com

Scale 1 : 2  
1" = 208'



Attachment 3

**MEMORANDUM**  
**VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**NORTHERN REGIONAL OFFICE**

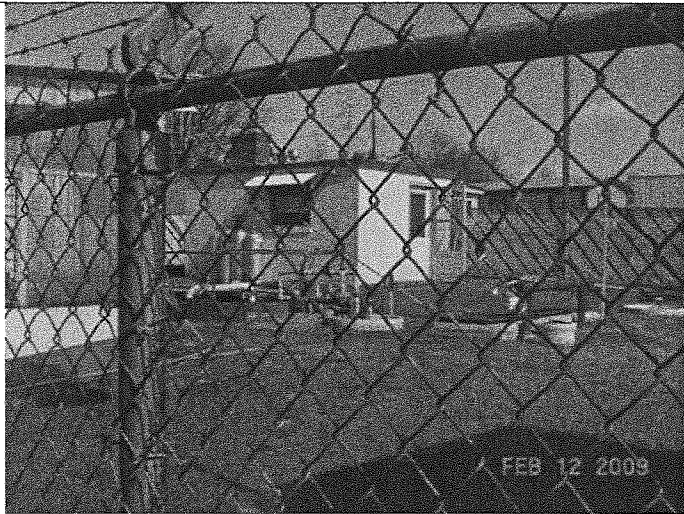
13901 Crown Court

Woodbridge, VA 22193

SUBJECT: Hiway Mobile Home Community  
TO: VPDES Permit File VA0074942  
FROM: Sharon Allen  
DATE: February 23, 2009

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- On February 12, 2009, I conducted a site visit at this facility while in the Lucketts area.
- Arrived at 1148. The weather was sunny and very windy, temperature in the mid-50's.
- The gate was locked and operators were not on site when I stopped by.
- I observed the STP area through the surrounding gate.
- The grounds are well maintained and all appeared orderly.
- I was not able to see inside the treatment tanks from outside the fence. However, I did observe wastewater splashing in the Contac Aerator.
- I checked the discharge pipe at outfall 001 and the receiving stream. The plant was not discharging.
- No problems were observed in or around the stream. Some sediment was observed on top of leaves in the stream bed, both upstream and downstream of the outfall pipe. Sediment appeared to be natural debris.
- The sludge in one of the drying beds appeared almost dry; the other side seemed fresher.
- Departed 1155.



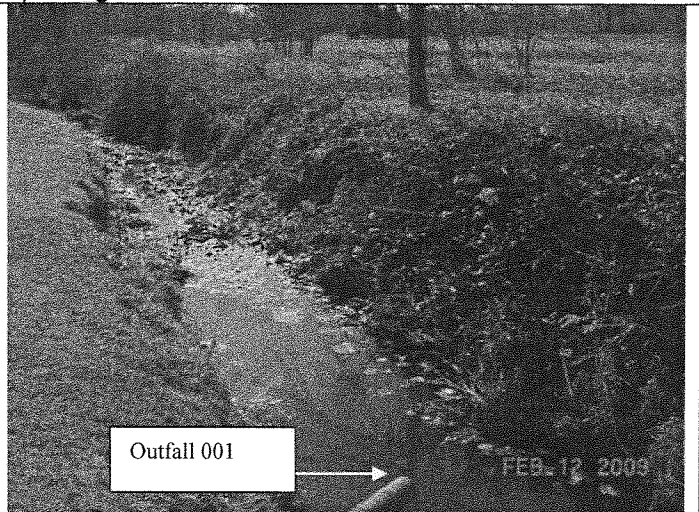
1) STP grounds seen from the creek (west side).



2) STP grounds seen from the north side.



3) Sludge drying beds.



4) Receiving stream.

Facility name: Hiway Mobile Home Community  
Site Inspection Date: February 12, 2009

VPDES Permit No. VA0074942  
Photos & Layout by: S. Allen  
Page 1 of 1

To: Alison Thompson  
From: Jennifer Carlson

Date: June 8, 2012  
Subject: Planning Statement for Hiway MHC WWTP  
Permit Number: VA0074942

**Information for Outfall 001:**

Discharge Type: Municipal  
Discharge Flow: 0.012 mgd  
Receiving Stream: Limestone Branch, UT  
Latitude / Longitude: 39 12 50.3/-77 32 11.1  
Rivermile: 0.39  
Streamcode: 1aXGK  
Waterbody: VAN-A03R  
Water Quality Standards: Class III, Section 8, sp. stds. PWS

1. Please provide water quality monitoring information for the receiving stream segment. If there is not monitoring information for the receiving stream segment, please provide information on the nearest downstream monitoring station, including how far downstream the monitoring station is from the outfall.

This facility discharges into an unnamed tributary to Limestone Branch. There is not any monitoring information for this stream. The nearest downstream DEQ monitoring station is 1aXAQ000.85, located on another unnamed tributary to Limestone Branch at the Route 661 bridge crossing. This station is located approximately 3.0 miles downstream of Outfall 001. The following is the water quality summary for this unnamed tributary to Limestone Branch, as taken from the Draft 2012 Integrated Report\*:

Class III, Section 8b, special stds. PWS.

DEQ ambient monitoring station 1AXAQ000.85, at Route 661. Citizen monitoring station 1AXAQ-5-LWC.

*E. coli* monitoring finds a bacteria impairment, resulting in an impaired classification for the recreation use. This impairment is nested within the downstream completed bacteria TMDL for Limestone Branch.

The aquatic life use is fully supporting, however an observed effect for the aquatic life use is noted as citizen monitoring finds a medium probability of adverse conditions for biota. The wildlife use is considered fully supporting.

The fish consumption and public water supply uses were not assessed.

*\*The Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently being finalized and prepared for release.*

2. Does this facility discharge to a stream segment on the 303(d) list? If yes, please fill out Table A.

No.

3. Are there any downstream 303(d) listed impairments that are relevant to this discharge? If yes, please fill out Table B.

Yes.

**Table B. Information on Downstream 303(d) Impairments and TMDLs**

Waterbody Name	Impaired Use	Cause	Distance From Outfall	TMDL completed	WLA	Basis for WLA	TMDL Schedule
<b><i>Impairment Information in the Draft 2012 Integrated Report*</i></b>							
Unnamed Tributary to Limestone Branch	Recreation	<i>E. coli</i>	1.9 miles	Limestone Branch Bacteria 07/06/2004	2.09E+10 cfu/year <i>E. coli</i>	126 cfu/100ml --- 0.012 MGD	N/A

*\*The Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently being finalized and prepared for release.*

4. Is there monitoring or other conditions that Planning/Assessment needs in the permit?

There is a completed downstream TMDL for the aquatic life use impairment for the Chesapeake Bay. However, the Bay TMDL and the WLAs contained within the TMDL are not addressed in this planning statement.

5. Fact Sheet Requirements – Please provide information regarding any drinking water intakes located within a 5 mile radius of the discharge point.

There are no public water supplies located within 5 miles of the discharge from this facility.

FRESHWATER  
WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Hiway MHP LLC STP Permit No.: VA0074942  
Receiving Stream: Limestone Branch, UT Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information			Stream Flows			Mixing Information			Effluent Information		
Mean Hardness (as CaCO <sub>3</sub> ) =	mg/L		1Q10 (Annual) =	0 MGD		Annual - 1Q10 Mix =	100 %		Mean Hardness (as CaCO <sub>3</sub> ) =	108 mg/L	
90% Temperature (Annual) =	deg C		7Q10 (Annual) =	0 MGD		- 7Q10 Mix =	100 %		90% Temp (Annual) =	25 deg C	
90% Temperature (Wet season) =	deg C		30Q10 (Annual) =	0 MGD		- 30Q10 Mix =	100 %		90% Temp (Wet season) =	16 deg C	
90% Maximum pH =	SU		1Q10 (Wet season) =	0 MGD		Wet Season - 1Q10 Mix =	100 %		90% Maximum pH =	7.5 SU	
10% Maximum pH =	SU		30Q10 (Wet season) =	0 MGD		- 30Q10 Mix =	100 %		10% Maximum pH =	7.05 SU	
Tier Designation (1 or 2) =	1		30Q5 =	0 MGD					Discharge Flow =	0.012 MGD	
Public Water Supply (PWS) Y/N? =	n		Harmonic Mean =	0 MGD							
Trout Present Y/N? =	n										
Early Life Stages Present Y/N? =	y										

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria			Wasteload Allocations			Antidegradation Baseline			Antidegradation Allocations			Most Limiting Allocations		
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)
Acenaphthene	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	na
Acrolein	0	--	--	na	9.3E+00	--	--	na	9.3E+00	--	--	--	--	--	--	na
Acrylonitrile <sup>c</sup>	0	--	--	na	2.5E+00	--	--	na	2.5E+00	--	--	--	--	--	--	na
Aldrin <sup>c</sup>	0	3.0E+00	--	na	5.0E-04	3.0E+00	--	na	5.0E-04	--	--	--	--	3.0E+00	--	na
Ammonia-N (mg/l) (Yearly)	0	1.99E+01	2.22E+00	na	--	1.99E+01	2.22E+00	na	--	--	--	--	--	1.99E+01	2.22E+00	na
Ammonia-N (mg/l) (High Flow)	0	1.99E+01	3.97E+00	na	--	1.99E+01	3.97E+00	na	--	--	--	--	--	1.99E+01	3.97E+00	na
Anthracene	0	--	--	na	4.0E+04	--	--	na	4.0E+04	--	--	--	--	--	--	na
Antimony	0	--	--	na	6.4E+02	--	--	na	6.4E+02	--	--	--	--	--	--	na
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	3.4E+02	1.5E+02	na
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	na
Benzene <sup>c</sup>	0	--	--	na	5.1E+02	--	--	na	5.1E+02	--	--	--	--	--	--	na
Benzidine <sup>c</sup>	0	--	--	na	2.0E-03	--	--	na	2.0E-03	--	--	--	--	--	--	na
Benzo (a) anthracene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	na
Benzo (b) fluoranthene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	na
Benzo (k) fluoranthene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	na
Benzo (a) pyrene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	na
Bis(2-Chloroethyl) Ether <sup>c</sup>	0	--	--	na	5.3E+00	--	--	na	5.3E+00	--	--	--	--	--	--	na
Bis(2-Chloroisopropyl) Ether	0	--	--	na	6.5E+04	--	--	na	6.5E+04	--	--	--	--	--	--	na
Bis 2-Ethylhexyl Phthalate <sup>c</sup>	0	--	--	na	2.2E+01	--	--	na	2.2E+01	--	--	--	--	--	--	na
Bromofom <sup>c</sup>	0	--	--	na	1.4E+03	--	--	na	1.4E+03	--	--	--	--	--	--	na
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	na
Cadmium	0	4.3E+00	1.2E+00	na	--	4.3E+00	1.2E+00	na	--	--	--	--	--	4.3E+00	1.2E+00	na
Carbon Tetrachloride <sup>c</sup>	0	--	--	na	1.6E+01	--	--	na	1.6E+01	--	--	--	--	--	--	na
Chlordane <sup>c</sup>	0	2.4E+00	4.3E-03	na	8.1E-03	2.4E+00	4.3E-03	na	8.1E-03	--	--	--	--	2.4E+00	4.3E-03	na
Chlordane <sup>c</sup>	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	8.6E+05	2.3E+05	na
Chloride	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	1.9E+01	1.1E+01	na
TRC	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	na
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	na



Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane <sup>c</sup>	0	--	--	na	1.3E+02	--	--	na	1.3E+02	--	--	--	--	--	--	--	--	--	--	na	1.3E+0:
Chloroform	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+0:
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+0:
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+0:
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	8.3E-02	4.1E-02	--	--	na	--
Chromium III	0	6.1E+02	7.9E+01	na	--	6.1E+02	7.9E+01	na	--	--	--	--	--	--	--	6.1E+02	7.9E+01	--	--	na	--
Chromium VI	0	1.9E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	1.6E+01	1.1E+01	--	--	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene <sup>c</sup>	0	--	--	na	1.8E-02	--	--	na	1.8E-02	--	--	--	--	--	--	--	--	--	--	na	1.8E-0:
Copper	0	1.4E+01	9.6E+00	na	--	1.4E+01	9.6E+00	na	--	--	--	--	--	--	--	1.4E+01	9.6E+00	--	--	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	2.2E+01	5.2E+00	na	1.6E+04	--	--	--	--	--	--	2.2E+01	5.2E+00	--	--	na	1.6E+0:
DDD <sup>c</sup>	0	--	--	na	3.1E-03	--	--	na	3.1E-03	--	--	--	--	--	--	--	--	--	--	na	3.1E-0:
DDE <sup>c</sup>	0	--	--	na	2.2E-03	--	--	na	2.2E-03	--	--	--	--	--	--	--	--	--	--	na	2.2E-0:
DDT <sup>c</sup>	0	1.1E+00	1.0E-03	na	2.2E-03	1.1E+00	1.0E-03	na	2.2E-03	--	--	--	--	--	--	1.1E+00	1.0E-03	--	--	na	2.2E-0:
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	1.0E-01	--	--	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	1.7E-01	1.7E-01	na	--	--	--	--	--	--	--	1.7E-01	1.7E-01	--	--	na	--
Dibenz(a,h)anthracene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-0:
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	--	--	na	1.3E+0:
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	9.6E+02	--	--	--	--	--	--	--	--	--	--	na	9.6E+0:
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.9E+02	--	--	--	--	--	--	--	--	--	--	na	1.9E+0:
3,3-Dichlorobenzidine <sup>c</sup>	0	--	--	na	2.8E-01	--	--	na	2.8E-01	--	--	--	--	--	--	--	--	--	--	na	2.8E-0:
Dichlorobromomethane <sup>c</sup>	0	--	--	na	1.7E+02	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	--	--	na	1.7E+0:
1,2-Dichloroethane <sup>c</sup>	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+0:
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	7.1E+03	--	--	--	--	--	--	--	--	--	--	na	7.1E+0:
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	1.0E+04	--	--	--	--	--	--	--	--	--	--	na	1.0E+0:
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	--	--	na	2.9E+0:
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+0:
1,2-Dichloropropane <sup>c</sup>	0	--	--	na	2.1E+02	--	--	na	2.1E+02	--	--	--	--	--	--	--	--	--	--	na	2.1E+0:
1,3-Dichloropropene <sup>c</sup>	0	2.4E-01	5.6E-02	na	5.4E-04	2.4E-01	5.6E-02	na	5.4E-04	--	--	--	--	--	--	2.4E-01	5.6E-02	--	--	na	5.4E-0:
Dieldrin <sup>c</sup>	0	--	--	na	4.4E+04	--	--	na	4.4E+04	--	--	--	--	--	--	--	--	--	--	na	4.4E+0:
Diethyl Phthalate	0	--	--	na	8.5E+02	--	--	na	8.5E+02	--	--	--	--	--	--	--	--	--	--	na	8.5E+0:
2,4-Dimethylphenol	0	--	--	na	1.1E+06	--	--	na	1.1E+06	--	--	--	--	--	--	--	--	--	--	na	1.1E+0:
Dimethyl Phthalate	0	--	--	na	4.5E+03	--	--	na	4.5E+03	--	--	--	--	--	--	--	--	--	--	na	4.5E+0:
Di-n-Butyl Phthalate	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+0:
2,4-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	2.8E+02	--	--	--	--	--	--	--	--	--	--	na	2.8E+0:
2-Methyl-4,6-Dinitrophenol	0	--	--	na	3.4E+01	--	--	na	3.4E+01	--	--	--	--	--	--	--	--	--	--	na	3.4E+0:
2,4-Dinitrotoluene <sup>c</sup>	0	--	--	na	5.1E-08	--	--	na	5.1E-08	--	--	--	--	--	--	--	--	--	--	na	5.1E-0:
Dioxin 2,3,7,8- tetrachlorodibenzo-p-dioxin	0	--	--	na	2.0E+00	--	--	na	2.0E+00	--	--	--	--	--	--	--	--	--	--	na	2.0E+0:
1,2-Diphenylhydrazine <sup>c</sup>	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	2.2E-01	5.6E-02	--	--	na	8.9E+0:
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	2.2E-01	5.6E-02	--	--	na	8.9E+0:
Beta-Endosulfan	0	2.2E-01	5.6E-02	--	--	2.2E-01	5.6E-02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	--	--	--	--
Alpha + Beta Endosulfan	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+0:
Endosulfan Sulfate	0	8.6E-02	3.6E-02	na	6.0E-02	8.6E-02	3.6E-02	na	6.0E-02	--	--	--	--	--	--	8.6E-02	3.6E-02	--	--	na	6.0E-0:
Endrin	0	--	--	na	3.0E-01	--	--	na	3.0E-01	--	--	--	--	--	--	--	--	--	--	na	3.0E-0:
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	3.0E-01	--	--	--	--	--	--	--	--	--	--	na	3.0E-0:

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	2.1E+03	--	--	--	--	--	--	--	--	--	--	na	2.1E+03
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	1.4E+02	--	--	--	--	--	--	--	--	--	--	na	1.4E+03
Fluorene	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor <sup>c</sup>	0	5.2E-01	3.8E-03	na	7.9E-04	5.2E-01	3.8E-03	na	7.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	7.9E-04
Heptachlor Epoxide <sup>c</sup>	0	5.2E-01	3.8E-03	na	3.9E-04	5.2E-01	3.8E-03	na	3.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	3.9E-04
Hexachlorobenzene <sup>c</sup>	0	--	--	na	2.9E-03	--	--	na	2.9E-03	--	--	--	--	--	--	--	--	--	--	na	2.9E-03
Hexachlorobutadiene <sup>c</sup>	0	--	--	na	1.8E+02	--	--	na	1.8E+02	--	--	--	--	--	--	--	--	--	--	na	1.8E+03
Hexachlorocyclohexane	0	--	--	na	4.9E-02	--	--	na	4.9E-02	--	--	--	--	--	--	--	--	--	--	na	4.9E-02
Alpha-BHC <sup>c</sup>	0	--	--	na	1.7E-01	--	--	na	1.7E-01	--	--	--	--	--	--	--	--	--	--	na	1.7E-01
Beta-BHC <sup>c</sup>	0	--	--	na	1.8E+00	9.5E-01	--	na	1.8E+00	--	--	--	--	--	--	--	--	9.5E-01	--	na	1.8E+00
Hexachlorocyclohexane	0	--	--	na	1.1E+03	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	--	--	na	1.1E+03
Gamma-BHC <sup>c</sup> (Lindane)	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Hexachlorocyclopentadiene	0	--	--	na	2.0E+00	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Hexachloroethane <sup>c</sup>	0	--	2.0E+00	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Hydrogen Sulfide	0	--	--	na	9.6E+03	--	--	na	9.6E+03	--	--	--	--	--	--	--	--	--	--	na	9.6E+03
Indeno (1,2,3-cd) pyrene <sup>c</sup>	0	--	--	na	0.0E+00	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Iron	0	1.3E+02	1.5E+01	na	--	1.3E+02	1.5E+01	na	--	--	--	--	--	--	--	--	--	1.3E+02	1.5E+01	na	--
Isophorone <sup>c</sup>	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Kepon	0	--	--	na	1.4E+00	1.4E+00	7.7E-01	--	--	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	--	--
Lead	0	--	--	na	1.5E+03	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	--	--	na	1.5E+03
Malathion	0	--	--	na	5.9E+03	--	--	na	5.9E+03	--	--	--	--	--	--	--	--	--	--	na	5.9E+03
Manganese	0	--	--	na	3.0E-02	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mercury	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Methyl Bromide	0	1.9E+02	2.2E+01	na	4.6E+03	1.9E+02	2.2E+01	na	4.6E+03	--	--	--	--	--	--	--	--	1.9E+02	2.2E+01	na	4.6E+03
Methylene Chloride <sup>c</sup>	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Nickel	0	1.9E+02	2.2E+01	na	4.6E+03	1.9E+02	2.2E+01	na	4.6E+03	--	--	--	--	--	--	--	--	1.9E+02	2.2E+01	na	4.6E+03
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	6.9E+02	--	--	--	--	--	--	--	--	--	--	na	6.9E+02
N-Nitrosodimethylamine <sup>c</sup>	0	--	--	na	3.0E+01	--	--	na	3.0E+01	--	--	--	--	--	--	--	--	--	--	na	3.0E+01
N-Nitrosodiphenylamine <sup>c</sup>	0	--	--	na	6.0E+01	--	--	na	6.0E+01	--	--	--	--	--	--	--	--	--	--	na	6.0E+01
N-Nitrosodi-n-propylamine <sup>c</sup>	0	--	--	na	5.1E+00	--	--	na	5.1E+00	--	--	--	--	--	--	--	--	--	--	na	5.1E+00
Nonylphenol	0	2.8E+01	6.6E+00	--	--	2.8E+01	6.6E+00	na	--	--	--	--	--	--	--	--	--	2.8E+01	6.6E+00	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB Total <sup>c</sup>	0	--	1.4E-02	na	6.4E-04	--	1.4E-02	na	6.4E-04	--	--	--	--	--	--	--	--	--	--	na	6.4E-04
Pentachlorophenol <sup>c</sup>	0	9.2E+00	7.0E+00	na	3.0E+01	9.2E+00	7.0E+00	na	3.0E+01	--	--	--	--	--	--	--	--	9.2E+00	7.0E+00	na	3.0E+01
Phenol	0	--	--	na	8.6E+05	--	--	na	8.6E+05	--	--	--	--	--	--	--	--	--	--	na	8.6E+05
Pyrene	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Radionuclides	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity (mrem/yr)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--



Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	2.0E+01	5.0E+00	na	4.2E+03	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	na	4.2E+03
Silver	0	3.9E+00	--	na	--	3.9E+00	--	na	--	--	--	--	--	--	--	--	--	3.9E+00	--	na	--
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,1,2,2-Tetrachloroethane <sup>c</sup>	0	--	--	na	4.0E+01	--	--	na	4.0E+01	--	--	--	--	--	--	--	--	--	--	na	4.0E+01
Tetrachloroethylene <sup>c</sup>	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Thallium	0	--	--	na	4.7E-01	--	--	na	4.7E-01	--	--	--	--	--	--	--	--	--	--	na	4.7E-01
Toluene	0	--	--	na	6.0E+03	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	--	--	na	6.0E+03
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Toxaphene <sup>c</sup>	0	7.3E-01	2.0E-04	na	2.8E-03	7.3E-01	2.0E-04	na	2.8E-03	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	na	2.8E-03
Tributyltin	0	4.6E-01	7.2E-02	na	--	4.6E-01	7.2E-02	na	--	--	--	--	--	--	--	--	--	4.6E-01	7.2E-02	na	--
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	7.0E+01	--	--	--	--	--	--	--	--	--	--	na	7.0E+01
1,1,2-Trichloroethane <sup>c</sup>	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Trichloroethylene <sup>c</sup>	0	--	--	na	3.0E+02	--	--	na	3.0E+02	--	--	--	--	--	--	--	--	--	--	na	3.0E+02
2,4,6-Trichlorophenol <sup>c</sup>	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
2-(2,4,5-Trichlorophenoxy)propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Vinyl Chloride <sup>c</sup>	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Zinc	0	1.3E+02	1.3E+02	na	2.6E+04	1.3E+02	1.3E+02	na	2.6E+04	--	--	--	--	--	--	--	--	1.3E+02	1.3E+02	na	2.6E+04

Notes:

- All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
- Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
- Metals measured as Dissolved, unless specified otherwise
- "C" indicates a carcinogenic parameter
- Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.  
Antidegradation WLAs are based upon a complete mix.  
Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic  
= (0.1(WQC - background conc.) + background conc.) for human health
- WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	6.4E+02
Arsenic	9.0E+01
Barium	na
Cadmium	7.2E-01
Chromium III	4.7E+01
Chromium VI	6.4E+00
Copper	5.7E+00
Iron	na
Lead	8.9E+00
Manganese	na
Mercury	4.6E-01
Nickel	1.3E+01
Selenium	3.0E+00
Silver	1.6E+00
Zinc	5.0E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

Date	pH (s.u.)
9/1/2012	7.12
9/2/2012	7.00
9/3/2012	7.16
9/4/2012	7.03
9/5/2012	6.88
9/6/2012	6.89
9/7/2012	7.01
9/8/2012	7.11
9/9/2012	7.06
9/10/2012	7.17
9/11/2012	7.10
9/12/2012	7.28
9/13/2012	7.41
9/14/2012	7.36
9/15/2012	7.47
9/16/2012	7.27
9/17/2012	6.90
9/18/2012	7.36
9/19/2012	7.26
9/20/2012	7.37
9/21/2012	7.20
9/22/2012	7.31
9/23/2012	7.39
9/24/2012	7.17
9/25/2012	7.20
9/26/2012	7.09
9/27/2012	7.06
9/28/2012	7.64
9/29/2012	7.66
9/30/2012	7.00
8/1/2012	7.05
8/2/2012	7.03
8/3/2012	7.11
8/4/2012	7.25
8/5/2012	7.06
8/6/2012	7.08
8/7/2012	6.99
8/8/2012	7.01
8/9/2012	7.10
8/10/2012	6.93
8/11/2012	7.08
8/12/2012	7.03
8/13/2012	6.90

7.5     90th percentile pH  
7.05    10th percentile pH

8/14/2012	7.21
8/15/2012	7.08
8/16/2012	7.49
8/17/2012	7.20
8/18/2012	7.38
8/19/2012	7.21
8/20/2012	7.02
8/21/2012	7.09
8/22/2012	7.28
8/23/2012	7.13
8/24/2012	7.27
8/25/2012	7.18
8/26/2012	7.16
8/27/2012	7.03
8/28/2012	6.96
8/29/2012	7.07
8/30/2012	6.92
8/31/2012	7.36
7/1/2012	6.95
7/2/2012	7.07
7/3/2012	7.13
7/4/2012	7.02
7/5/2012	7.16
7/6/2012	7.21
7/7/2012	7.36
7/8/2012	7.38
7/9/2012	7.05
7/10/2012	6.93
7/11/2012	6.98
7/12/2012	7.09
7/13/2012	7.53
7/14/2012	7.47
7/15/2012	7.19
7/16/2012	7.01
7/17/2012	7.05
7/18/2012	6.93
7/19/2012	6.99
7/20/2012	7.26
7/21/2012	7.04
7/22/2012	7.21
7/23/2012	7.09
7/24/2012	7.07
7/25/2012	6.98
7/26/2012	7.11

7/27/2012	7.39
7/28/2012	7.21
7/29/2012	7.17
7/30/2012	7.09
7/31/2012	7.02
6/1/2012	6.99
6/2/2012	7.07
6/3/2012	7.15
6/4/2012	7.19
6/5/2012	7.26
6/6/2012	7.10
6/7/2012	7.08
6/8/2012	7.37
6/9/2012	7.26
6/10/2012	7.20
6/11/2012	7.42
6/12/2012	7.32
6/13/2012	7.20
6/14/2012	7.10
6/15/2012	7.52
6/16/2012	7.47
6/17/2012	7.13
6/18/2012	6.98
6/19/2012	7.20
6/20/2012	7.10
6/21/2012	7.17
6/22/2012	7.50
6/23/2012	7.59
6/24/2012	7.15
6/25/2012	7.24
6/26/2012	7.09
6/27/2012	7.14
6/28/2012	7.06
6/29/2012	7.42
6/30/2012	7.21
5/1/2012	7.07
5/2/2012	7.00
5/3/2012	7.09
5/4/2012	7.13
5/5/2012	7.31
5/6/2012	7.33
5/7/2012	7.10
5/8/2012	7.22
5/9/2012	7.09

5/10/2012	7.06
5/11/2012	7.60
5/12/2012	7.51
5/13/2012	7.22
5/14/2012	7.17
5/15/2012	7.05
5/16/2012	7.11
5/17/2012	7.19
5/18/2012	7.38
5/19/2012	7.21
5/20/2012	7.09
5/21/2012	7.51
5/22/2012	7.20
5/23/2012	7.16
5/24/2012	7.03
5/25/2012	7.13
5/26/2012	7.06
5/27/2012	6.97
5/28/2012	7.05
5/29/2012	7.00
5/30/2012	6.91
5/31/2012	7.14
4/1/2012	7.37
4/2/2012	7.18
4/3/2012	7.14
4/4/2012	7.29
4/5/2012	7.46
4/6/2012	7.30
4/7/2012	7.11
4/8/2012	7.35
4/9/2012	7.19
4/10/2012	7.22
4/11/2012	7.06
4/12/2012	7.27
4/13/2012	7.25
4/14/2012	7.31
4/15/2012	7.34
4/16/2012	7.22
4/17/2012	7.29
4/18/2012	7.20
4/19/2012	7.36
4/20/2012	7.49
4/21/2012	7.28
4/22/2012	7.13

4/23/2012	7.30
4/24/2012	7.11
4/25/2012	7.08
4/26/2012	7.00
4/27/2012	7.78
4/28/2012	7.61
4/29/2012	7.12
4/30/2012	7.23
3/1/2012	7.13
3/2/2012	7.38
3/3/2012	7.32
3/4/2012	7.18
3/5/2012	7.10
3/6/2012	7.16
3/7/2012	7.08
3/8/2012	7.26
3/9/2012	7.13
3/10/2012	7.31
3/11/2012	7.19
3/12/2012	7.43
3/13/2012	7.31
3/14/2012	7.20
3/15/2012	7.17
3/16/2012	7.12
3/17/2012	7.23
3/18/2012	7.19
3/19/2012	7.07
3/20/2012	7.21
3/21/2012	7.00
3/22/2012	7.17
3/23/2012	7.39
3/24/2012	7.23
3/25/2012	7.11
3/26/2012	7.20
3/27/2012	7.07
3/28/2012	7.41
3/29/2012	7.09
3/30/2012	7.27
3/31/2012	7.19
2/1/2012	7.31
2/2/2012	7.25
2/3/2012	7.63
2/4/2012	7.43
2/5/2012	7.31

2/6/2012	7.16
2/7/2012	7.22
2/8/2012	7.28
2/9/2012	7.15
2/10/2012	7.44
2/11/2012	7.53
2/12/2012	7.09
2/13/2012	7.22
2/14/2012	7.17
2/15/2012	7.38
2/16/2012	7.21
2/17/2012	7.43
2/18/2012	7.28
2/19/2012	7.38
2/20/2012	7.10
2/21/2012	7.42
2/22/2012	7.35
2/23/2012	7.38
2/24/2012	7.36
2/25/2012	7.28
2/26/2012	7.19
2/27/2012	7.11
2/28/2012	7.54
2/29/2012	7.30
1/1/2012	7.22
1/2/2012	7.48
1/3/2012	7.55
1/4/2012	7.39
1/5/2012	7.41
1/6/2012	7.53
1/7/2012	7.36
1/8/2012	7.51
1/9/2012	7.18
1/10/2012	7.23
1/11/2012	7.33
1/12/2012	7.60
1/13/2012	7.75
1/14/2012	7.68
1/15/2012	7.40
1/16/2012	7.37
1/17/2012	7.21
1/18/2012	7.30
1/19/2012	7.36
1/20/2012	7.44

1/21/2012	7.58
1/22/2012	7.38
1/23/2012	7.23
1/24/2012	7.41
1/25/2012	7.09
1/26/2012	7.39
1/27/2012	7.57
1/28/2012	7.43
1/29/2012	7.21
1/30/2012	7.09
1/31/2012	7.37
12/1/2011	7.37
12/2/2011	7.51
12/3/2011	7.45
12/4/2011	7.31
12/5/2011	7.20
12/6/2011	7.39
12/7/2011	7.47
12/8/2011	7.40
12/9/2011	7.26
12/10/2011	7.42
12/11/2011	7.38
12/12/2011	7.17
12/13/2011	7.61
12/14/2011	7.40
12/15/2011	7.28
12/16/2011	7.39
12/17/2011	7.42
12/18/2011	7.31
12/19/2011	7.55
12/20/2011	7.60
12/21/2011	7.39
12/22/2011	7.22
12/23/2011	7.29
12/24/2011	7.16
12/25/2011	7.08
12/26/2011	7.61
12/27/2011	7.43
12/28/2011	7.25
12/29/2011	7.61
12/30/2011	7.66
12/31/2011	7.42
11/1/2011	7.45
11/2/2011	7.39



11/3/2011	7.26
11/4/2011	7.44
11/5/2011	7.38
11/6/2011	7.20
11/7/2011	7.91
11/8/2011	7.56
11/9/2011	7.50
11/10/2011	7.33
11/11/2011	7.53
11/12/2011	7.49
11/13/2011	7.71
11/14/2011	7.63
11/15/2011	7.60
11/16/2011	7.31
11/17/2011	7.46
11/18/2011	7.38
11/19/2011	7.23
11/20/2011	7.19
11/21/2011	7.10
11/22/2011	7.57
11/23/2011	7.49
11/24/2011	7.36
11/25/2011	7.51
11/26/2011	7.40
11/27/2011	7.30
11/28/2011	7.38
11/29/2011	7.27
11/30/2011	7.41
10/1/2011	7.45
10/2/2011	7.39
10/3/2011	7.17
10/4/2011	7.59
10/5/2011	7.07
10/6/2011	7.14
10/7/2011	7.21
10/8/2011	7.66
10/9/2011	7.51
10/10/2011	7.24
10/11/2011	7.60
10/12/2011	7.43
10/13/2011	7.29
10/14/2011	7.21
10/15/2011	7.36
10/16/2011	7.17

10/17/2011	7.31
10/18/2011	7.20
10/19/2011	7.29
10/20/2011	7.34
10/21/2011	7.40
10/22/2011	7.42
10/23/2011	7.31
10/24/2011	7.27
10/25/2011	7.21
10/26/2011	7.33
10/27/2011	7.40
10/28/2011	7.51
10/29/2011	7.48
10/30/2011	7.37
10/31/2011	7.19
9/1/2011	7.63
9/2/2011	7.41
9/3/2011	7.58
9/4/2011	7.35
9/5/2011	7.39
9/6/2011	7.23
9/7/2011	7.48
9/8/2011	7.16
9/9/2011	7.06
9/10/2011	7.12
9/11/2011	7.67
9/12/2011	7.20
9/13/2011	7.56
9/14/2011	7.29
9/15/2011	7.04
9/16/2011	7.61
9/17/2011	7.70
9/18/2011	7.65
9/19/2011	7.65
9/20/2011	7.62
9/21/2011	7.61
9/22/2011	7.53
9/23/2011	7.64
9/24/2011	7.84
9/25/2011	7.71
9/26/2011	7.50
9/27/2011	7.37
9/28/2011	7.08
9/29/2011	6.99

9/30/2011	7.68
-----------	------

7.555 90th percentile pH  
7.05 10th percentile pH

# VaFWIS - Department of Game and Inland Fisheries

39,12,50.0 -77,32,10.9  
is the Search Point

## Search Point

- ☒ Change to "clicked" map point  
☐ Fixed at 39,12,50.0 - 77,32,10.9

## Show Position Rings

☒ Yes ☐ No

1 mile and 1/4 mile at the Search Point

## Show Search Area

☒ Yes ☐ No

2 Search distance miles radius

Search Point is at map center


## Base Map Choices

Topography

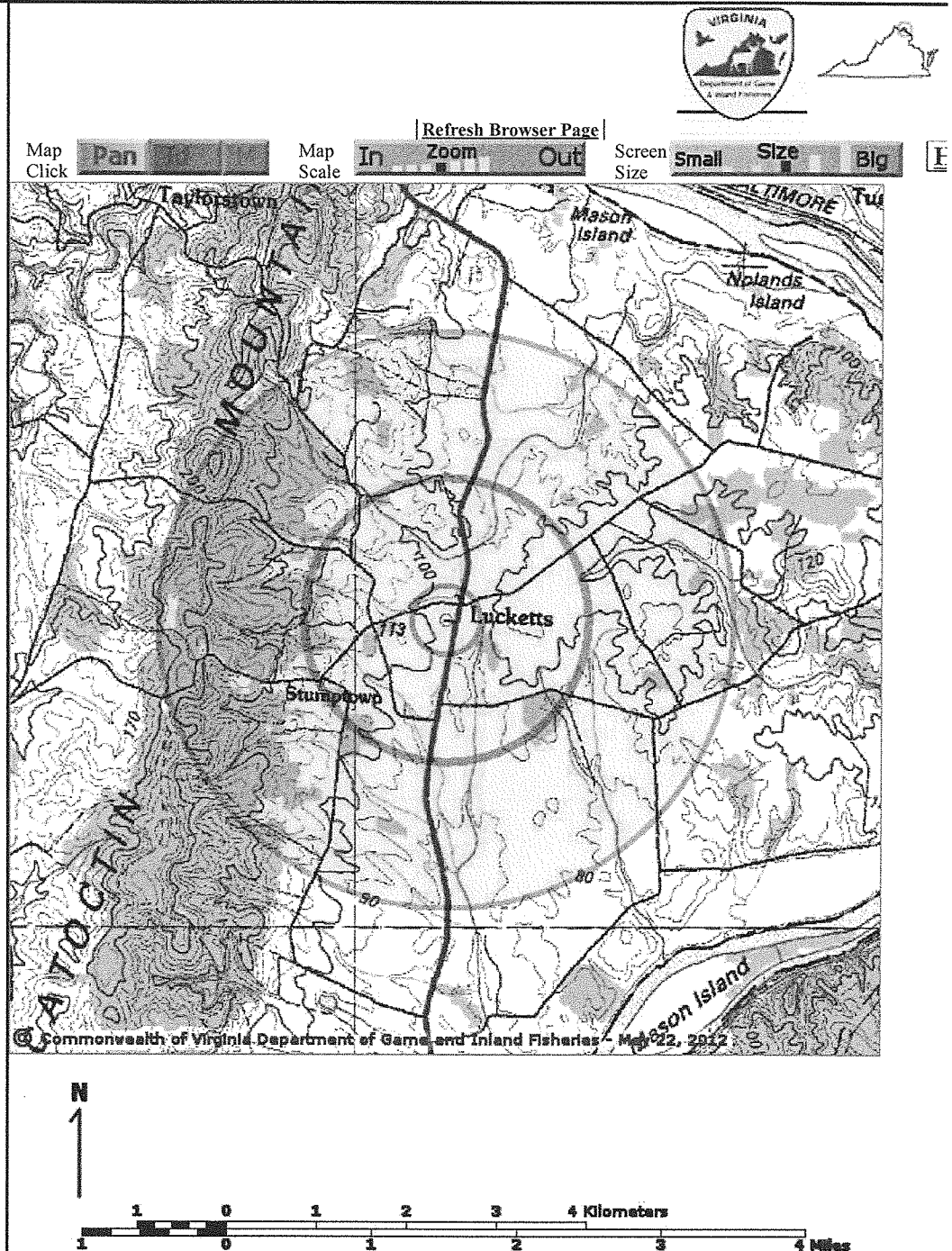
## Map Overlay Choices

Current List: Position, Search

## Map Overlay Legend

 Position Rings  
1 mile and 1/4 mile at the Search Point

 2 mile radius Search Area



Point of Search 39,12,50.0 -77,32,10.9

Map Location 39,12,50.0 -77,32,10.9

Select Coordinate System: ☒ Degrees, Minutes, Seconds Latitude - Longitude

☐ Decimal Degrees Latitude - Longitude

☐ Meters UTM NAD83 East North Zone

☐ Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see [Microsoft.terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 276231 and top 4348389. Pixel size is 16 meters. Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 9600 meters east to west by

## Attachment 7

9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5 square miles.

Topographic maps and Black and white aerial photography for year 1990+ are from the United States Department of the Interior, United States Geological Survey. Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.

Shaded topographic maps are from TOPO! ©2006 National Geographic  
<http://www.national.geographic.com/topo>

All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2012-05-22 09:03:38 (qa/qc December 1, 2011 15:16 - tn=397188 dist=32181)

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**VaFWIS Initial Project Assessment Report** Compiled on 5/22/2012, 9:04:51 AM

[Help](#)

Known or likely to occur within a 2 mile radius around point 39,12,50.0 77,32,11.0 in 107 Loudoun County, VA

[View Map of Site Location](#)

438 Known or Likely Species ordered by Status Concern for Conservation (displaying first 20) (20 species with Status\* or Tier I\*\* or Tier II\*\*)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
030062	ST	I	<a href="#">Turtle, wood</a>	Glyptemys insculpta		BOVA,Habitat
040129	ST	I	<a href="#">Sandpiper, upland</a>	Bartramia longicauda	Yes	BOVA,SppObs
040293	ST	I	<a href="#">Shrike, loggerhead</a>	Lanius ludovicianus	Yes	BOVA,SppObs
040379	ST	I	<a href="#">Sparrow, Henslow's</a>	Ammodramus henslowii		BOVA
040093	FSST	II	<a href="#">Eagle, bald</a>	Haliaeetus leucocephalus		BOVA
060081	ST	II	<a href="#">Floater, green</a>	Lasmigona subviridis		BOVA
040292	ST		<a href="#">Shrike, migrant loggerhead</a>	Lanius ludovicianus migrans		BOVA
100248	FS	I	<a href="#">Fritillary, regal</a>	Speyeria idalia idalia		BOVA
100166	FS	II	<a href="#">Skipper, Dotted</a>	Hesperia attalus slossonae		BOVA
030063	CC	III	<a href="#">Turtle, spotted</a>	Clemmys guttata		BOVA
030012	CC	IV	<a href="#">Rattlesnake, timber</a>	Crotalus horridus		BOVA
040372		I	<a href="#">Crossbill, red</a>	Loxia curvirostra		BOVA

040225	I	<u>Sapsucker, yellow-bellied</u>	<u>Sphyrapicus varius</u>	BOVA
040319	I	<u>Warbler, black-throated green</u>	<u>Dendroica virens</u>	BOVA
040306	I	<u>Warbler, golden-winged</u>	<u>Vermivora chrysoptera</u>	BOVA
040052	II	<u>Duck, American black</u>	<u>Anas rubripes</u>	BOVA
040213	II	<u>Owl, northern saw-whet</u>	<u>Aegolius acadicus</u>	BOVA
040105	II	<u>Rail, king</u>	<u>Rallus elegans</u>	BOVA
040320	II	<u>Warbler, cerulean</u>	<u>Dendroica cerulea</u>	BOVA
040266	II	<u>Wren, winter</u>	<u>Troglodytes troglodytes</u>	BOVA

To view All 438 species [View 438](#)

\* FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FC=Federal Candidate; FS=Federal Species of Concern; CC=Collection Concern

\*\* I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need

Bat Colonies or Hibernacula: **Not Known**

#### Anadromous Fish Use Streams

N/A

#### Colonial Water Bird Survey

N/A

#### Threatened and Endangered Waters

N/A

#### Managed Trout Streams

N/A

#### Bald Eagle Concentration Areas and Roosts

N/A

#### Bald Eagle Nests

N/A

#### Habitat Predicted for Aquatic WAP Tier I & II Species ( 1 Reach )

[View Map Combined Reaches from Below of Habitat Predicted for WAP Tier I & II Aquatic Species](#)

Stream Name	Tier Species				View Map
	Highest TE *	BOVA Code, Status *	Tier **	Common & Scientific Name	
(20700081)	ST	030062    ST    I		<u>Turtle, wood</u>    <u>Glyptemys insculpta</u>	<u>Yes</u>

#### Habitat Predicted for Terrestrial WAP Tier I & II Species

N/A

#### Public Holdings:

N/A

Compiled on 5/22/2012, 9:04:52 AM ID397188.0 report=IPA searchType=R dist=3218 poi=39.1250 0.773211.0  
 PixelSize=64; Anadromous=0.038665; BECAR=0.032213; Bas=0.038043; Buffer=0.224945; County=0.139967; Impediments=0.027019; Inlt=0.285441; PubliLands=0.049961; SppObs=0.925427; TEWaters=0.038153; TierReaches=0.12194; TierTerrestrial=0.057963; Total=1.889367; Trout=0.035575; V2=0.032303=0.096271

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- Site tested using browsers Chrome 10+, Firefox 2+, IE 6+, Opera 9+, and Safari 4+ ( FWISWEB1 May 22, 2012 9:04:52AM northern I 397188 )
- W3C HTML [validation](#) <BASE href="http://vafwis.org/fwis/NewPages/">VaFWIS [GeographicSelect\\_Options.asp](#)

8/6/02 1:50:26 PM

Facility = Hiway Trailer Park  
Chemical = Ammonia (May-Oct)  
Chronic averaging period = 4  
WLAa = 11.93  
WLAc = 1.45  
Q.L. = .2  
# samples/mo. = 1  
# samples/wk. = 1

Summary of Statistics:

# observations = 1  
Expected Value = 9  
Variance = 29.16  
C.V. = 0.6  
97th percentile daily values = 21.9007  
97th percentile 4 day average = 14.9741  
97th percentile 30 day average = 10.8544  
# < Q.L. = 0  
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity  
Maximum Daily Limit = 2.12073343687719  
Average Weekly limit = 2.12073343687719  
Average Monthly Limit = 2.12073343687719

The data are:



8/6/02 1:51:06 PM

Facility = Hiway Trailer Park  
Chemical = Ammonia (Nov-Apr)  
Chronic averaging period = 4  
WLAa = 12.24  
WLAc = 2.11  
Q.L. = .2  
# samples/mo. = 1  
# samples/wk. = 1

Summary of Statistics:

# observations = 1  
Expected Value = 9  
Variance = 29.16  
C.V. = 0.6  
97th percentile daily values = 21.9007  
97th percentile 4 day average = 14.9741  
97th percentile 30 day average = 10.8544  
# < Q.L. = 0  
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity  
Maximum Daily Limit = 3.08603279435232  
Average Weekly limit = 3.08603279435232  
Average Monthly Limit = 3.08603279435232

The data are:

STATS for TRC

10/25/2012 12:46:37 PM

Facility = Hiway MHC STP  
Chemical = Total Residual Chlorine  
Chronic averaging period = 4  
WLAA = 19  
WLAC = 11  
Q.L. = 100  
# samples/mo. = 30  
# samples/wk. = 8

Summary of Statistics:

# observations = 1  
Expected Value = 200  
Variance = 14400  
C.V. = 0.6  
97th percentile daily values = 486.683  
97th percentile 4 day average = 332.758  
97th percentile 30 day average = 241.210  
# < Q.L. = 0  
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity  
Maximum Daily Limit = 16.0883226245855  
Average Weekly limit = 9.59676626920107  
Average Monthly Limit = 7.9737131838758

The data are:

200

# MEMORANDUM

## State Water Control Board

2111 North Hamilton Street

P. O. Box 11143

SUBJECT: Demory's Trailer Court STP Discharge Stream Analysis

TO: Dale Phillips, OERS

FROM: Steve Crowther, NRO *SC*

DATE: June 19, 1987

A stream analysis was performed for Demory's Trailer Court STP which has an existing discharge in Loudoun County. The NPDES permit application indicates that the requested design flow is 12,000 GPD which does not constitute an expansion. The plant has been discharging to an x-tributary of Limestone Branch since 1965. The Q7-10 for the receiving stream at the discharge point is 0.0026 MGD and the slope is approximately 48 feet/mile. The stream was modeled to maintain a 5.0 mg/l dissolved oxygen value. The modeling results indicate that the NPDES permit should include effluent limits of:

$BOD_5 = 25 \text{ mg/l}$

$D.O. = 6.0 \text{ mg/l}$

If you have any questions, please give me a call.

SC:cm

Demory's Trailer Court

UPSTREAM  
 $Q = .0026 \text{ MGD}$   
 $BOD_5 = 3$   
 $DO = 6.78$

DEMORY STP  
 $Q = .012 \text{ MGD}$   
 $BOD_5 = 30$   
 $DO = 6.0$

TRIBUTARY TO LIMESTONE BRANCH

2 mile reach

Stream Gage Date: Goose Cree  
 near Leesburg VA.

$Q_{7-10} = 2.3 \text{ cfs}$

$DA = 332 \text{ sq. mi.}$

$$\frac{.007 \text{ cfs}}{\text{mi}^2} \times .57 \text{ mi}^2 = \frac{.0039 \text{ cfs}}{1.547} = .0026$$

Slope of reach  $\approx 48 \text{ feet/mi}$

Assume STP:  $BOD_5 = 30 \text{ mg/l}$   
 $DO = 6.0 \text{ mg/l}$   
 $Q = .012 \text{ MGD}$

Stream:  $BOD_5 = 3 \text{ mg/l}$   
 $Q = .0026 \text{ MGD}$   
 $DO$  (calculated below)

$$BOD_u = \frac{75(.012) + 7.5(.0026)}{.0146} = 62.98 \text{ mg/l}$$

$$K_1 \text{ for } (BOD_5 = 25.1) = .202 (1.047)^{10} = .320$$

$$DO_{SAT} = 7.6 (1 - .00003 (300 \text{ ft}))$$

$$= 7.53$$

elevation = 300 ft.

$$90\% DO_{SAT} = 6.78 \text{ mg/l}$$

$$DO_f = \frac{6.0 (.012) + 6.78 (.0026)}{.0146} = 6.14 \text{ mg/l}$$

$$D_a = 7.53 - 6.14 = 1.39$$

$$K_m = 0$$

$K_2$ : Using Tseringlon / Wallace equation:

$$\text{slope} = 48 \text{ ft/m}$$

$$v = .3 \text{ ft/s}$$

$$K_2 = 4235.36 \text{ US}$$

$$= (4235.36) (.3) (48) (5280^{-1}) = 11.55$$

$$\text{or } K_2 = (.025) (24) (48) = 28.8$$

$$K_2 \text{ AVG} = 20.2 \quad \therefore \underline{\text{use } K_{2\text{max}} = 20}$$

$$\text{Time} = \frac{2 \text{ mile}}{.3 \text{ ft/s}} = .407 \text{ day}$$

Data and results on next page.

# Demory Trailer Coast STP

Assume  
STP:

$BOD_5 =$

$DO = 6.0$

## First Reach

	30	30	30	30	25
	—	—	—	—	
(AFTER MIX) ↳ $BOD_{uL}$	62.98	62.98	62.98	62.98	52.7
$NOD_{uL}$	—	—	—	—	—
$D_a$	1.39	1.39	1.39	1.39	1.39
$K_1$	.320	.64	.320	.64	.61
$K_m$	0	0	0	0	0
$K_2$	20	20	10	10	10
STEP	.05	.05	.05	.05	.05
$DO_{SAT}$	7.53	7.53	7.53	7.53	7.53
90% $DO_{SAT}$	6.78	6.78	6.78	6.78	6.78
$t$ (day)	.400	.400	.400	.400	.400
$DO_{SAG}$	6.38	5.67	5.66	4.09	4.75
$DO_{at\ END}$	6.62	5.91	5.71	4.24	4.82
Sensitivity	AS Calculated	Double $K_1$	Halve $K_2$	Double $K_1$ and Halve $K_2$	Double $K_1$ and Halve $K_2$
Acceptable	✓	✓	✓	X	✓

First reach was modeled to meet water quality standard,  $DO = 5.0$  mg/l.  
Nitrification was not incorporated.

To maintain all of the sensitivity tests, the model results indicate that the permit limits should include  
 $LO = 6.0$  mg/l and  $BOD_5 = 25$  mg/l.

## Public Notice – Environmental Permit

**PURPOSE OF NOTICE:** To seek public comment on a draft permit from the Department of Environmental Quality that will allow the release of treated wastewater into a water body in Loudoun County, Virginia.

**PUBLIC COMMENT PERIOD:** XXX, 2012 to 5:00 p.m. on XXX, 2012

**PERMIT NAME:** Virginia Pollutant Discharge Elimination System Permit – Wastewater issued by DEQ, under the authority of the State Water Control Board

**APPLICANT NAME, ADDRESS AND PERMIT NUMBER:** Hiway MHC LLC, 10006 Hammock Bend, Chapel Hill, NC 27517, VA0074942

**NAME AND ADDRESS OF FACILITY:** Hiway MHC LLC STP, 14489 James Monroe Hwy, Leesburg, VA 20176

**PROJECT DESCRIPTION:** Hiway MHC LLC has applied for a new/modified/reissuance of a permit for the private Hiway MHC LLC STP. The applicant proposes to release treated sewage wastewaters from residential areas at a rate of 0.012 million gallons per day into a water body. The sludge will be disposed at the Loudoun County Landfill. The facility proposes to release the treated sewage into Limestone Branch, UT, in Loudoun County in the Potomac River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: pH, BOD, Total Suspended Solids, Total Residual Chlorine, Ammonia as N, Dissolved Oxygen, and *E. coli*.

**HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING:** DEQ accepts comments and requests for public hearing by e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requestor, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there are substantial, disputed issues relevant to the permit.

**CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION:** The public may review the documents at the DEQ-Northern Regional Office by appointment, or may request electronic copies of the draft permit and fact sheet.

Name: Alison Thompson

Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193

Phone: (703) 583-3834 E-mail: [alison.thompson@deq.virginia.gov](mailto:alison.thompson@deq.virginia.gov) Fax: (703) 583-3821

**State "Transmittal Checklist" to Assist in Targeting  
Municipal and Industrial Individual NPDES Draft Permits for Review**

**Part I. State Draft Permit Submission Checklist**

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	Hiway MHC LLC STP
NPDES Permit Number:	VA0074942
Permit Writer Name:	Alison Thompson
Date:	October 31, 2012

Major [ ]

Minor [X]

Industrial [ ]

Municipal [X]

**I.A. Draft Permit Package Submittal Includes:**

	Yes	No	N/A
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?	X		
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?	X		
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?	X		
8. Whole Effluent Toxicity Test summary and analysis?			X
9. Permit Rating Sheet for new or modified industrial facilities?			X

**I.B. Permit/Facility Characteristics**

	Yes	No	N/A
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet or permit contain a description of the wastewater treatment process?	X		
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet or permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?	X		
a. Has a TMDL been developed and approved by EPA for the impaired water?	X		
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?			X
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?	X		
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?	X		
10. Does the permit authorize discharges of storm water?		X	



<b>I.B. Permit/Facility Characteristics – cont.</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?		X	
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

**Part II. NPDES Draft Permit Checklist**

**Region III NPDES Permit Quality Checklist – for POTWs**  
(To be completed and included in the record only for POTWs)

<b>II.A. Permit Cover Page/Administration</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

<b>II.B. Effluent Limits – General Elements</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether “antibacksliding” provisions were met for any limits that are less stringent than those in the previous NPDES permit?	X		

<b>II.C. Technology-Based Effluent Limits (POTWs)</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
1. Does the permit contain numeric limits for <u>ALL</u> of the following: BOD (or alternative, e.g., CBOD, COD, TOC), TSS, and pH?	X		
2. Does the permit require at least 85% removal for BOD (or BOD alternative) and TSS (or 65% for equivalent to secondary) consistent with 40 CFR Part 133?	X		
a. If no, does the record indicate that application of WQBELs, or some other means, results in more stringent requirements than 85% removal or that an exception consistent with 40 CFR 133.103 has been approved?			X
3. Are technology-based permit limits expressed in the appropriate units of measure (e.g., concentration, mass, SU)?	X		
4. Are permit limits for BOD and TSS expressed in terms of both long term (e.g., average monthly) and short term (e.g., average weekly) limits?	X		
5. Are any concentration limitations in the permit less stringent than the secondary treatment requirements (30 mg/l BOD5 and TSS for a 30-day average and 45 mg/l BOD5 and TSS for a 7-day average)?		X	
a. If yes, does the record provide a justification (e.g., waste stabilization pond, trickling filter, etc.) for the alternate limitations?			X

<b>II.D. Water Quality-Based Effluent Limits</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the fact sheet indicate that any WQBELs were derived from a completed and EPA approved TMDL?	X		
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a “reasonable potential” evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the “reasonable potential” evaluation was performed in accordance with the State’s approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?	X		
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have “reasonable potential”?	X		
d. Does the fact sheet indicate that the “reasonable potential” and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations)?	X		
e. Does the permit contain numeric effluent limits for all pollutants for which “reasonable potential” was determined?	X		

<b>II.D. Water Quality-Based Effluent Limits – cont.</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term AND short-term effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the record indicate that an “antidegradation” review was performed in accordance with the State’s approved antidegradation policy?	X		

<b>II.E. Monitoring and Reporting Requirements</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
1. Does the permit require at least annual monitoring for all limited parameters and other monitoring as required by State and Federal regulations?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			X
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require at least annual influent monitoring for BOD (or BOD alternative) and TSS to assess compliance with applicable percent removal requirements?		X	
4. Does the permit require testing for Whole Effluent Toxicity?		X	

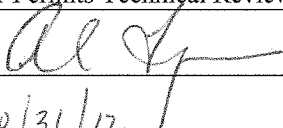
<b>II.F. Special Conditions</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
1. Does the permit include appropriate biosolids use/disposal requirements?	X		
2. Does the permit include appropriate storm water program requirements?	X		

<b>II.F. Special Conditions – cont.</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
3. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
4. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?			X
5. Does the permit allow/authorize discharge of sanitary sewage from points other than the POTW outfall(s) or CSO outfalls [i.e., Sanitary Sewer Overflows (SSOs) or treatment plant bypasses]?		X	
6. Does the permit authorize discharges from Combined Sewer Overflows (CSOs)?		X	
a. Does the permit require implementation of the “Nine Minimum Controls”?			X
b. Does the permit require development and implementation of a “Long Term Control Plan”?			X
c. Does the permit require monitoring and reporting for CSO events?			X
7. Does the permit include appropriate Pretreatment Program requirements?			X

II.G. Standard Conditions	Yes	No	N/A
1. Does the <b>permit</b> contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		
<b>List of Standard Conditions – 40 CFR 122.41</b>			
Duty to comply	Property rights	Reporting Requirements	
Duty to reapply	Duty to provide information	Planned change	
Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance	
not a defense	Monitoring and records	Transfers	
Duty to mitigate	Signatory requirement	Monitoring reports	
Proper O & M	Bypass	Compliance schedules	
Permit actions	Upset	24-Hour reporting	
		Other non-compliance	
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for POTWs regarding notification of new introduction of pollutants and new industrial users [40 CFR 122.42(b)]?	X		

### Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	<u>Alison Thompson</u>
Title	<u>Water Permits Technical Reviewer</u>
Signature	<u></u>
Date	<u>10/31/12</u>